

COUNTRY PROFILE **2017**



SIERRA LEONE



United Nations
Economic Commission for Africa

COUNTRY PROFILE **2017**



SIERRA LEONE

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Content

Acronyms and abbreviations	v
Acknowledgements	vii
Sierra Leone at a glance	viii
1. Overview	1
2. National and subregional context	2
3. Economic performance	7
3.1 Economic growth	7
3.2 Fiscal policy	10
3.3 Monetary policy	12
3.4 Current account	13
3.5 Capital and financial accounts	14
4. Social developments	16
4.1 Demography	16
4.2 Poverty and employment	17
4.3 Health	19
4.4 Education	21
4.5 Gender	22
5. Major policy challenges: the mining sector	24
5.1 Mining in Sierra Leone	24
5.2 Issues and challenges	27
5.3 Reforms and policies to support structural transformation in Sierra Leone through the mining sector	28
6. National data quality evaluation	31
References	32

Acronyms and abbreviations

AfDB	African Development Bank
AGDI	African Gender Development Index
ARII	Africa regional integration index
CEN-SAD	Community of Sahel-Saharan States
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
ECOWAS	Economic Community of West African States
IMF	International Monetary Fund
OECD	Organization for Economic Cooperation and Development
SLIHS	Sierra Leone Integrated Household Survey
UNDESA	United Nations Department of Economic and Social Affairs
UNICEF	United Nations Children's Fund
WAMA	West African Monetary Agency
WHO	World Health Organization

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Sierra Leone at a glance

General information		Classification	Rank	Of a total of	Year	Source
Subregion	West Africa	Human Development Index	179	188	2015	UNDP
Official language	English	Gender inequality index	157	157	2015	UNDP
Currency	leone	Ibrahim Index of African Governance	26	54	2017	Mo Ibrahim Foundation
Capital	Freetown	Ease of doing business index	160	190	2017	World Bank
Membership of regional economic communities	CEN-SAD, ECOWAS, Mano River Union	Corruption perceptions index	123	176	2016	Transparency International



Economic growth

Sierra Leone's economy experienced double digit growth in 2012 and 2013, driven by a massive expansion of iron ore mining, but 2014 and 2015 brought the double shock of the Ebola virus disease epidemic and the closure of iron ore mining, and the economy contracted by more than 20 per cent in 2015. With the resumption of iron ore mining, growth rebounded to 6.1 per cent in 2016. Agriculture makes up almost 60 per cent of GDP, industry slightly more than 10 per cent and services around 30 per cent.



Fiscal policy

From 2015 to 2016, domestic revenue increased by 2 percentage points to reach 12.1 per cent of GDP. The 13.2 per cent of GDP reached in 2013 has yet to be repeated, however. If the growth in the economy, especially mining, continue, revenue is expected to rise further in the coming years. Recurrent expenditure, the bulk of total expenditure, further increased in 2016 and the overall budget deficit widened further to more than 8 per cent of GDP before being reduced to 6.6 per cent in 2017. Public debt as a percentage of non-iron ore GDP increased substantially from almost 30 per cent in 2015 to 42.5 per cent in 2017.



Monetary policy

Targeting price stability as its main goal, the Bank of Sierra Leone managed to stabilize inflation during the crisis years of 2014 and 2015, when it was below 7 per cent. The depreciation of the leone in 2016 resulted in annual average inflation of 10.9 per cent. This trend continued in 2017, year-on-year inflation being consistently above 15 per cent. Lending rates are above 20 per cent, agriculture, the country's biggest sector, receiving only 6 per cent of all loans, less than any other sector.



Current account

The current account deficit improved steadily from 2012, dropping from -US\$ 1.2 billion (31.8 per cent of GDP) to around -US\$ 400 million (10.4 per cent of GDP) in 2016. This was the combined result of increased exports, reduced imports and higher current transfers. In 2016, more than 70 per cent of Sierra Leone's exports were minerals along with a small amounts of cocoa, coffee and fish products. Imports were more diversified, including food, machinery, mineral fuels and manufactured goods.



Capital and financial accounts

In recent years, foreign direct investment, which stood at 2.3 trillion leone (9.5 per cent of GDP) in 2016, has been primarily in iron ore mining. Overall levels of investment fell substantially in 2015 as a result of the closure of iron ore mining and Ebola. The 2016 recovery represented the return of foreign direct investment and renewed investor confidence.



Demography

Sierra Leone's population of 7.1 million has grown at 3.2 per cent per year since 2004, with generally higher growth rates in Freetown. Some 60 per cent of the population live in rural areas. Population density is 990 inhabitants per km² and the fertility rate in 2015 was 5.2 children per woman.



Poverty

Poverty decreased substantially from 66.4 per cent in 2003 to 52.9 per cent in 2011. It is twice as prevalent in rural areas than in urban areas, and poverty reduction is slower in rural areas. During the same period, inequality rose in Sierra Leone, but varies at the regional level, with generally more inequality in urban areas. There is a strong inverse relationship between poverty and education; poverty is higher if the household head is employed in agriculture and the larger the household.



Employment

A total of 65 per cent of the working age population are active in the labour market. Those who are not are either in education, lack resources to start a business or are caring for their household. In 2014, unemployment stood at only 4.3 per cent in the country as a whole but was more than 11 per cent in Freetown. Most employment is agricultural self-employment, and only 9.5 per cent of workers are in wage employment.



Health

Health care in Sierra Leone is a serious issue: maternal mortality is among the highest in the world, at 1,360 deaths per 100,000 live births in 2015; child mortality is also very high; and Sierra Leone's life expectancy at birth in 2015 was the world's lowest, at 50.1 years. To address these issues, in 2010 the Government of Sierra Leone launched a Free Health Care Initiative. Preliminary results are encouraging, despite the negative impact of Ebola.



Education

Literacy rates among 15–24 year olds increased by a staggering 30 percentage points to 68 per cent between 2000 and 2015. Gender parity was reached in primary school education in 2012, but females are underrepresented from secondary school onwards. Female education is further complicated by the fact that teenage pregnancies are common and visibly pregnant girls are not allowed at school nor to sit exams in Sierra Leone.



Gender

There is gender equality in employment, health and access to land but women lack adequate representation in politics, and have little access to credit and financial institutions and higher education.

Overview

Between 2014 and 2016, Sierra Leone suffered the dual shock of the Ebola epidemic in 2014 and, in 2015, the closure of almost all iron ore mining, a main driving force of the economy since 2011. Recovery began in 2016: Ebola had been conquered and iron ore mining resumed. In 2016, GDP stood at 23.9 trillion leones, the equivalent of US\$ 3.8 billion at an annual average exchange rate in 2016 of 6,291.72 leones per US\$. Inflationary pressure and a substantial depreciation of the leone in 2016, which continued in 2017, pose a threat to the economy and have a direct impact on fiscal stability.

Sierra Leone's population was 7.1 million in 2015. The population has increased by 3.2 per cent a year in recent years. Poverty, especially in rural areas, is widespread but fell by almost 14 percentage points between 2003 and 2011 (latest available figure) to a rate of 52.9 per cent. Health outcomes, especially child mortality, maternal mortality and life expectancy are among the world's lowest, but Sierra Leone's Free Health Care Initiative, introduced in 2010, is bearing fruit according to a recent evaluation. The literacy rate of 15–24 year olds was 68 per cent in 2015. Gender parity in primary school enrolment, health outcomes and access to land has been reached, but secondary schools are still recording higher male enrolment rates, women are underrepresented in politics and women's access to credit is lower.

Mining plays a prominent role in Sierra Leone and provides the majority of export earnings. Diamonds, iron ore and rutile are the main minerals and together made up 64 per cent of exports in 2016. The period 2012–2016 saw first the rise, then the demise and recently the re-emergence of iron ore mining as a key driver of economic growth. These events had extensive impacts on Sierra Leone in terms of GDP growth, foreign direct investment and exports. Mining has a limited impact on employment, however, and has severe side effects on local communities and the environment. In order to address these issues and to harvest economic and social gains, Sierra Leone has established legal frameworks and institutions and developed policies.

National and subregional context

Sierra Leone is a tropical country with an area of 71,740 km² and is bordered by Guinea and Liberia. Its current growth performance is volatile, with periods of strong growth and a recent recession in 2015 (figure 1). Iron ore mining, part of Sierra Leone's economy since 2011, is the major driving-force of these fluctuations. Iron ore was the fastest growing sector until 2014 and reached a sectoral share of 18 per cent of GDP in 2014 (Statistics Sierra Leone, 2017b). However, that year also marked a turning-point for Sierra Leone's economy: first, the Ebola epidemic began in late 2013 in Guinea and reached its peak in Sierra Leone in November 2014 (Wang and others, 2015). The World Health Organization (WHO) confirmed a total of 14,122 cases of Ebola and 3,955 deaths in Sierra Leone alone (WHO, 2016a). Ebola had and continues to have huge consequences for the society and the economy as a whole.¹ Second, iron ore spot prices declined from US\$ 154 in early 2013 to US\$ 68 at the end of 2014 (World Bank, 2017c). These two factors led to increasing costs and decreasing revenues for miners and eventually the closure of almost all iron ore mining operations. As a result, iron ore's share of GDP dropped to 0.02 per cent in 2015 (Statistics Sierra Leone, 2014). To address these adverse effects, the Government of Sierra Leone undertook a comprehensive programme costing almost US\$ 700 million – the *President's Recovery Priorities*² – from July 2015 to July 2017, which focused on 13 key results in health, social protection, education, private sector development, water, energy and governance.

In March 2016, WHO officially declared Sierra Leone Ebola-free. Iron ore prices recovered at the same time, mining resumed and the economy returned to positive growth of 6.1 per cent in 2016 and is expected to grow by 6 per cent in 2017. For the aforementioned reasons, and as can be seen in figure 1, Sierra Leone's GDP growth is very different from West Africa and Africa in general, with massive growth until 2013, followed by a huge decline in 2015. This shows the magnitude and impact of iron ore mining on the country's GDP: when growth is considered without iron ore, it resembles much more closely the overall pattern in West Africa. The main remaining differences can be attributed to the impact of Ebola in 2014 and 2015, and the recovery in 2016.

1 See also United Nations Economic Commission for Africa (ECA), 2015.

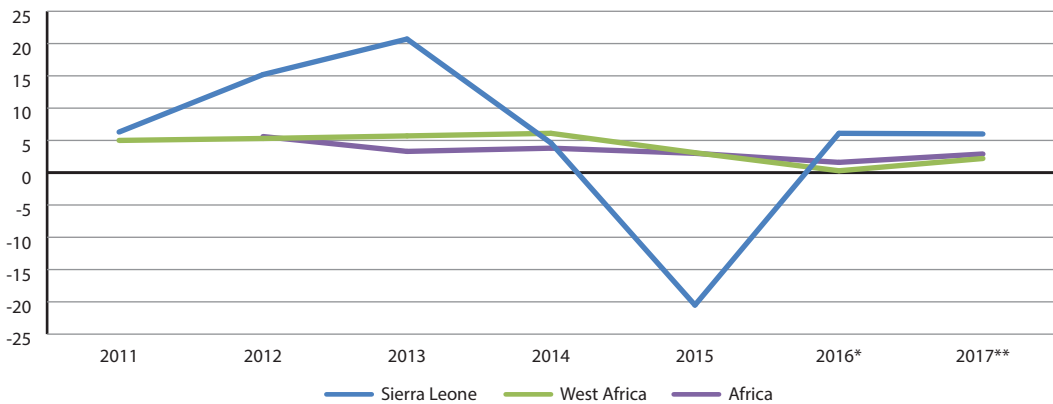
2 See also www.presidentsrecoverypriorities.gov.sl.

On 14 August 2017, after heavy rainfall, a landslide hit the Western Area of Sierra Leone, resulting in 1,141 persons being declared dead or missing and a total of 6,000 people affected (World Bank, 2017b). Three hundred and forty-nine buildings were destroyed, low-income settlements being particularly hard hit. Total economic losses are estimated at 237 billion leones (US\$ 31.7 million). The biggest shares of the losses were housing (49 per cent), health (15 per cent) and social protection (15 per cent). It is further estimated that 618 billion leones (US\$ 82.4 million) are required to recover from the landslide and bring results in line with best practices in the Build Back Better principle.³

This country profile looks at key issues of Sierra Leone's Agenda for Prosperity 2013–2018, such as the structural composition of the economy (section 3), the role of natural resources (section 5), human development (sections 4.3 and 4.4), labour and employment (section 4.2) and gender (section 4.5) and can therefore contribute to assessing whether or not the objectives of the Agenda can be achieved in time.

Considering the future of Sierra Leone, it is important to note that general elections took place on 7 March 2018, including presidential elections, the outcome of which will be a new president, since the incumbent, Ernest Bai Koroma, is barred from re-election by term limits. A peaceful transition and continued political stability are vital factors for institutional stability, good governance and the economic and social development of the country.

Figure 1: Growth performance of Sierra Leone in the regional context



Source: Statistics Sierra Leone (2017b), (United Nations Department of Economic and Social Affairs (UNDESA) and others, 2015, 2016, 2017a, 2017b) and International Monetary Fund (IMF), 2017b).

***Data** for 2017 is estimated.

³ See also <https://practicalaction.org/build-back-better>.

Table 1: Adherence by Sierra Leone to the ECOWAS convergence criteria, 2013–2016

	Target	2013	2014	2015	2016
Primary criteria					
Budget deficit/GDP (including grants)	$\leq 3\%$	2.1	4.1	4.4	8.2
Average inflation	$< 10\%$	5.5	4.6	6.7	10.9
Central bank financing of budget deficit	$\leq 10\%$	1.7	8.1	-2.2	33.4
Gross external reserves	≥ 3 months of imports	2.0	3.6	3.8	3.6
Secondary criteria					
Exchange rate stability (leone/dollar)	$\pm 10\%$	1.1	-4.0	-3.1	-19.1
Total public debt/GDP	$\leq 70\%$	28.5	35.3	45.4	55.1
Number of criteria met		5	5	5	2

Sources: West African Monetary Agency (WAMA) (2017), Statistics Sierra Leone (2017a), (IMF, 2016) and (Kargbo, 2017).

Sierra Leone is a member of the Community of Sahel-Saharan States (CEN-SAD), the Economic Community of West African States (ECOWAS) and the Mano River Union, which connects countries of West and North Africa. The ECOWAS common external tariff came into force on 1 January 2015 and was implemented by Sierra Leone at the end of 2017. Sierra Leone currently meets only two of the six ECOWAS convergence criteria (table 1). Coming out of the recent economic slump of 2014 and 2015, and suffering from a depreciation of the leone, the criteria on budget deficit, inflation, central bank financing of budget debt and exchange rate stability were not met in 2016. Nonetheless, economic growth has been substantial in recent years (see next section).

Box 1: Africa regional integration index: Sierra Leone

The Africa regional integration index (ARII) is designed to measure the extent to which each country in Africa is meeting its commitments under the various pan-African integration frameworks, such as Agenda 2063 and the Abuja Treaty. The Index, which is a joint project of the African Development Bank (AfDB), the African Union Commission (AUC) and the Economic Commission for Africa, covers the following dimensions: free movement of people, trade integration, productive integration (development of regional value chains), regional infrastructure, and financial integration and macroeconomic policy convergence. The five dimensions and their respective indicators are analysed below. A technical description of the indicators can be found at www.integrate-africa.org.

Overall rank:

Twenty-third in CEN-SAD (score 0.27) and thirteenth in ECOWAS (score 0.40). The best performing country in both CEN-SAD (score 0.65) and ECOWAS (score 0.66) is Côte d'Ivoire.

Free movement of persons	Trade integration	Productive integration	Infrastructure	Financial integration and macroeconomic policy convergence
Twelfth in CEN-SAD (score 0.66). Best performer in CEN-SAD is Côte d'Ivoire (score 0.80). Same score for all ECOWAS member States (score 0.8).	Twenty-third in CEN-SAD (score 0.06). Best performer in CEN-SAD is Côte d'Ivoire (score 0.96). Fifth in ECOWAS (score 0.52). The best performer in ECOWAS is Nigeria (score 1).	Thirteenth in CEN-SAD (score 0.26). Best performer in CEN-SAD is Kenya (score 0.75). Sixth in ECOWAS (score 0.35). The best performer in ECOWAS is the Gambia (score 0.52).	Twenty-fourth in CEN-SAD (score 0.14). The best performer in CEN-SAD is Morocco (score 0.6). Eleventh in ECOWAS (score-0.31). The best performer in ECOWAS is Cabo Verde (score 0.63).	Twenty-sixth in CEN-SAD (score 0.22) and fourteenth in ECOWAS (score 0.03). The best performer in both CEN-SAD and ECOWAS is Niger (score 1).

Source: <https://www.integrate-africa.org>

Sierra Leone is a member of CEN-SAD and ECOWAS. It is a poor performer in both CEN-SAD (ranked 23rd with an overall score of 0.27) and ECOWAS (ranked 13th with an overall score of 0.41). The overall score and rank is derived from the country's performance in the five dimensions of Africa regional integration index.

Free movement of persons: Sierra Leone is ranked 12th in CEN-SAD (score 0.66) and shares the same score with all ECOWAS members (score 0.8). It has ratified the protocol on free movement of people in both CEN-SAD and ECOWAS and allows nationals of fifteen countries of these regional economic communities (fourteen are members of both CEN-SAD and ECOWAS and one, Mauritania is a member only of CEN-SAD) to enter the country without a visa.

Trade integration: Sierra Leone is a poor performer in CEN-SAD (ranked 23rd with a score of 0.06) but an average performer in ECOWAS (ranked 5th with a score of 0.52). It applies on average 0.77 per cent customs duty on intraregional imports based on data used for the calculation of the Index. This makes it an average performer regionally in terms of tariff liberalization. In terms of intraregional goods trade (as a percentage of total intra-community trade), it is a moderate performer in both CEN-SAD (0.97 per cent) and ECOWAS (1.71 per cent).

Productive integration: Sierra Leone is an average performer in CEN-SAD (ranked 13th with a score of 0.26) and ECOWAS (ranked 6th with a score of 0.35). This dimension captures value chains in production measured as a share of intraregional trade (both imports and exports) of intermediate goods, and intraregional trade specialization measured by the United Nations Conference on Trade and Development (UNCTAD) Merchandise Trade Complementarity Index. Sierra Leone's Merchandise Trade Complementarity Index has a value of 0.15, making it a moderately poor performer compared with other countries in CEN-SAD and ECOWAS. This performance suggests that Sierra Leone's merchandise complementarity with the other community members is relatively poor.

Infrastructure integration: Sierra Leone is a poor performer in CEN-SAD (ranked 24th with a score of 0.14) and ECOWAS (ranked 11th with a score of 0.31). This performance is mainly attributed to poor regional air connections and the poor state of infrastructure assets, although Sierra Leone is among the best performers within its economic communities in terms of roaming charges (average cost of 0.01 US cents per minute). Based on the African Development Infrastructure Index (ranging from 0 to 100), Sierra Leone is ranked among poor performers with an average value of 7.69 over the period 2010–2012. In terms of air connection, Sierra Leone has a marginal share in CEN-SAD (0.87 per cent) and a relatively low share in ECOWAS (3.53 per cent).

Financial integration and macroeconomic policy convergence: Sierra Leone is among the poorest performers in CEN-SAD (ranked 26th with a score of 0.22) and ECOWAS (ranked 11th with a score of 0.03). This performance is partly attributable to a double-digit average inflation rate in the period 2010–2013 and the level of regional convertibility of the leone (not convertible in either regional economic community).

In conclusion, Sierra Leone is a moderate to poor performer compared to members of CEN-SAD and ECOWAS. The country performs moderately regarding free movement of people and productive integration but is among the poorest performers in regional trade integration, regional infrastructure integration, and financial integration and macroeconomic policy convergence in both communities. To support its regional integration efforts, infrastructure assets and productive capacities need to be scaled up and a stable macroeconomic environment promoted in Sierra Leone.

Economic performance

3.1 Economic growth

Despite the Ebola epidemic and the shutdown of most iron ore mining in 2015, Sierra Leone recorded average annual GDP growth of 5.2 per cent in the period 2012–2016 (Statistics Sierra Leone, 2014).

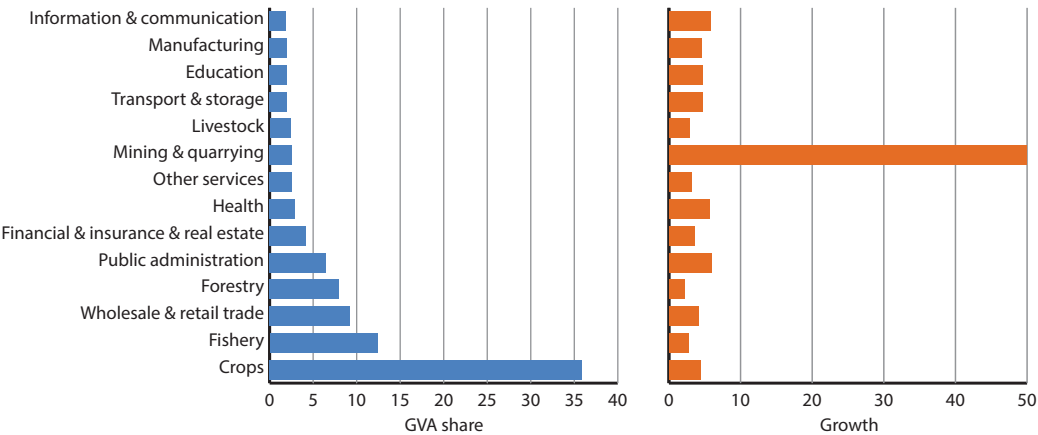
Agriculture is Sierra Leone's main sector, accounting for almost 60 per cent of GDP in 2016, and recorded average annual growth of 3.3 per cent from 2012 to 2016. In 2014, growth in agriculture fell to 0.8 per cent because farming was substantially disrupted during the Ebola epidemic, but recovered strongly thereafter. Crops make up the fastest growing agricultural sector, reaching more than 4 per cent every year since 2012, with the exception of 2014 (Statistics Sierra Leone, 2017b). This led to substantially reduced food imports in 2016, when they were almost 30 per cent lower than in 2015 (Sierra Leone Customs and Excise Department, 2017).

Industry accounted for 12.4 per cent of GDP in 2016 and is dominated by mining and quarrying, which alone contributed 5.8 per cent of GDP (Statistics Sierra Leone, 2017b). Iron ore mining resumed in 2016 and led to an overall growth of mining of almost 50 per cent in 2016. In 2014, when iron ore mining was in full swing, mining made up more than 18 per cent of GDP. This shows the sector's huge potential for future growth. Nonetheless, it is important to note that this growth depends on global commodity prices in the steel sector. Bauxite, diamonds, gold, ilmenite and rutile mining have also been drivers of growth in the sector. Manufacturing contributes only 2 per cent to overall GDP, but grew by 4.6 per cent in 2016. Construction, water and electricity together account for only 1.2 per cent of GDP but have been growing at about 5 per cent in the last two years.

Services have grown by an average of 4.5 per cent a year since 2012 and accounted for 32.7 per cent of GDP in 2016. The biggest subsectors are wholesale and retail trade, which account for slightly more than 9 per cent of overall GDP, followed by public services with 6.5 per cent, and finance, insurance and real estate with about 4 per cent. The fastest expanding subsectors were communication, health, public administration and wholesale and retail trade, all recording more than 4 per cent growth in 2016.

During the height of the Ebola crisis in 2014, private consumption contracted by 15.5 per cent, government consumption shrank by almost 20 per cent, and investment was

Figure 2: Sector shares and growth, 2016



Source: Statistics Sierra Leone (2017b).

reduced by about 5 per cent (Statistics Sierra Leone, 2017b). In 2015 private consumption recovered, growing by 1.5 per cent, and there was a huge 25 per cent increase in government consumption to tackle Ebola. At the same time, investment shrank by a further 15 per cent, while exports fell by 55 per cent and imports contracted by 18.3 per cent. As can be seen in figure 3, the end of the Ebola epidemic in 2016 resulted in a strong resumption of growth in exports and imports: they grew by more than 30 per cent and 20 per cent, respectively. The largest share of GDP was private consumption, which recorded the third highest growth in 2016, reaching almost 10 per cent. Investment has not recovered fully from the crisis, however, reaching only 4.7 per cent in 2016. One of the reasons for low investment rates is low capital expenditure by the Government during the crisis years of 2014 and 2015, which is examined in the next section.

Box 2: Economic forecasts for Sierra Leone

A comparison of forecasts

Several organizations currently produce forecasts on economic growth for Sierra Leone. These include the African Development Bank, the Economist Intelligence Unit (EIU), the International Monetary Fund (IMF) and the World Bank. The forecasts produced by these organizations diverged from each other by as much as 30 percentage points for the period 2008–2017 (see figure A). The IMF provided the most optimistic growth forecasts, averaging 8 per cent for the period 2008–2017. Looking forward, the most optimistic growth estimates for 2017 are from the World Bank (5.3 per cent), followed by AfDB (3.7 per cent), EIU (3.5 per cent) and IMF (-0.7 per cent).

The degree of accuracy of these forecasts is important, and ECA has therefore carried out an analysis to assess which forecasts tend to be more accurate by calculating the root mean square error and the mean absolute error,^a which are the most common forecast evaluation measures. Generally, the higher the value of the errors, the less accurate the forecasts. ECA forecast analysis over the period 2008–2016 indicates that IMF forecasts are relatively more accurate, followed by those of the AfDB, while the World Bank and EIU forecasts had relatively high forecast errors (see figure B).

Figure A: Forecasts of real GDP growth rate, by institution

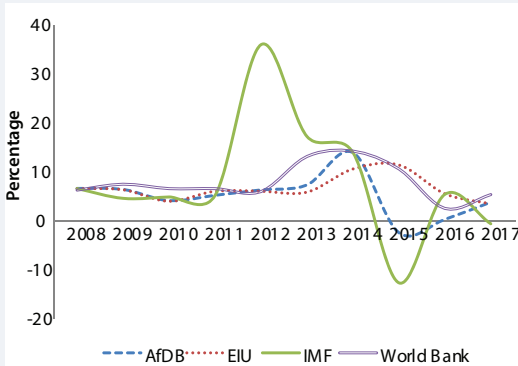
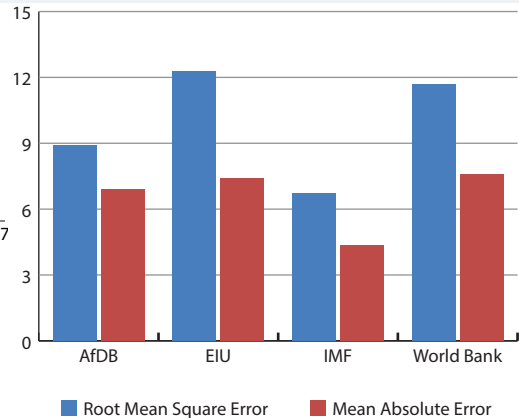


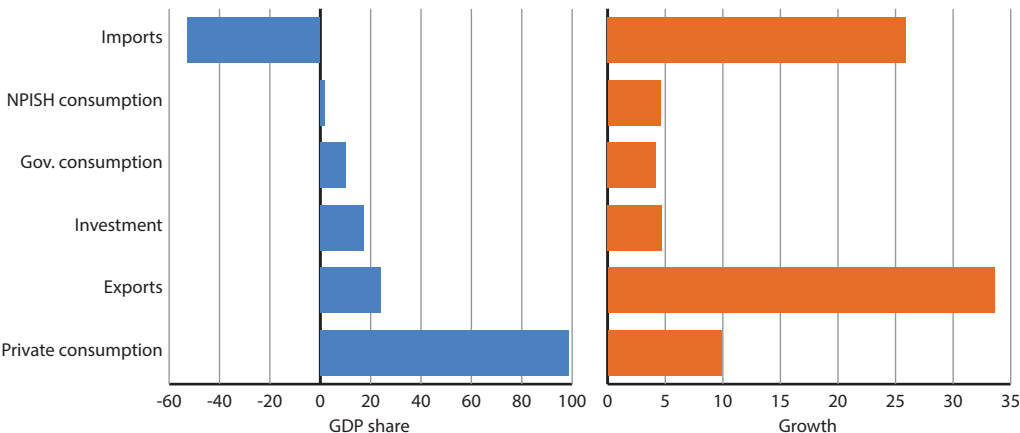
Figure B: Forecast error (2008–2016)



Source: ECA computations.

^a For more information on these terms and the ECA approach to evaluating the accuracy of forecasts, see ECA (2015).

Figure 3: Demand shares and growth, 2016 (percentage)



Abbreviation: NPISH - non-profit institutions serving households.

Source: Statistics Sierra Leone (2017b).

3.2 Fiscal policy

The year 2016 saw the recovery from the Ebola epidemic; the growing economy raised domestic revenue substantially to 12.1 per cent of GDP, where it remained in 2017 (table 2). Higher collection rates of taxes on income, goods and services and increased mining royalties, particularly for iron ore and rutile, drove this expansion (Kargbo, 2016, 2017). At the same time, the end of the Ebola epidemic saw a significant reduction in grants, from 5.1 per cent of GDP in 2015 to 3.1 per cent in 2016. As a result of increased domestic revenue and reduced grants, total revenue was constant at 15.2 per cent of GDP in both 2015 and 2016, but a further reduction in grants reduced total revenue to 14.8 per cent of GDP in 2017. Total expenditure and net lending, on the other hand, increased further, from 19.2 per cent of GDP in 2015 to 22.8 per cent of GDP in 2016 and fell to 21.2 per cent of GDP in 2017. Recurrent expenditure made up the bulk of these expenses, but fell slightly in 2017. At the same time, capital expenditure increased by more than one basis point in 2016 but returned to the previous level in 2017. Despite the increased domestic revenue mobilization, the budget deficit widened to 8.2 per cent in 2016 and contracted to 6.6 per cent in 2017 (Kargbo, 2016, 2017, and IMF, 2016). In 2017, 40 per cent of the budget deficit was financed by foreign sources, 31 per cent by commercial bank lending, 30 per cent by central bank financing and 2 per cent by securities (Kargbo, 2017). At the same time, the overall external debt as a percentage of non-iron ore GDP increased from 29.4 per cent in 2015 to 42.5 per cent in 2017 (Kargbo, 2017). Despite this drastic increase and the recent depreciation of the leone, a debt sustainability analysis by IMF (IMF, 2017a) shows that the positive macroeconomic outlook of Sierra Leone is expected to improve the debt-to-GDP ratio and that the country is at only moderate risk of debt distress. The study further notes that the possibility of continued depreciation could mean slower improvement in the debt-to-GDP ratio, but does not pose a substantial risk to debt sustainability.

In July 2016, the International Monetary Fund (IMF, 2016) noted that non-compliance was one of the main reasons for low tax collection and hence low domestic revenue. The informal economy, which does not pay the same amount of tax as formal enterprises, is another factor. Estimates by Medina and Schneider (2017) suggest that the informal economy of Sierra Leone makes up on average 41.5 per cent of GDP. Sierra Leone has adopted several measures to close the fiscal gap, such as introducing a goods and services tax on electricity, reducing tax exemptions, liberalizing the state monopoly on telecommunications, while restraining expenditure and lowering the wage bill. Success was already visible in 2016, when domestic

Table 2: Fiscal accounts (percentage of GDP)

	2012	2013	2014	2015	2016	2017
Total revenue and grants	16.3	16.4	14.8	15.2	15.2	14.8
-Domestic revenue	12.2	13.2	10.3	10.1	12.1	12.1
-Income tax revenue	5.1	5.4	4.2	3.9	5.3	4.3
-Goods and services tax	2.7	2.5	2.1	2.6	2.8	2.8
-Customs and excise department	2.2	2.8	2.4	2.4	2.4	3.4
-Mines department	1.4	1.4	0.9	0.4	0.7	0.5
-Grants	4.1	3.2	4.5	5.1	3.1	2.7
Total expenditure and lending minus repayments	21.9	18.3	18.3	19.2	22.8	21.2
-Recurrent expenditure	13.7	12.6	12.6	12.2	14.9	14.1
-Wages and salaries	6.1	6.1	6.7	6.9	7.6	6.3
-Goods and services	3.0	3.0	3.2	3.0	4.8	3.1
	0.0	0.0	0.0	0.0	0.0	0.0
Total interest payments	1.9	1.7	1.0	0.8	0.8	2.1
-Domestic interest	1.7	1.5	0.8	0.6	0.6	1.8
-Foreign interest	0.2	0.2	0.2	0.2	0.3	0.3
Capital expenditure	8.2	6.6	5.6	7.0	8.6	7.1
-Foreign financed	5.2	4.2	2.9	4.2	4.3	4.2
-Domestically financed	3.0	2.4	2.6	2.8	4.2	3.0
OVERALL DEFICIT (CASH BASIS) including grants	-6.2	-2.1	-4.1	-4.4	-8.2	-6.6

Source: Kargbo, 2016, 2017; Sierra Leone Ministry of Finance and Economic Development (2013, 2014, 2015).

revenue increased by 0.4 basis points in terms of GDP, while expenditure decreased by 1.3 basis points in terms of GDP compared with 2015.

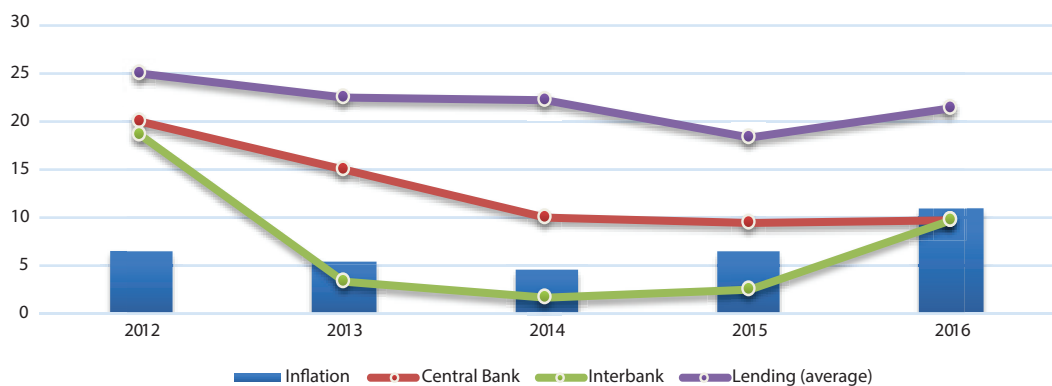
3.3 Monetary policy

The Bank of Sierra Leone, Sierra Leone's central bank, is pursuing a policy of price stability under the Bank of Sierra Leone Act, 2011. Despite the challenges of the double shock of Ebola and the closure of iron ore mining in 2015, the Bank continued to keep annual average inflation below ten per cent in 2015 (figure 4). This is remarkable since the depreciation of the leone had substantially increased the costs of imports, of which a significant part is foodstuffs, an important part of the consumer price inflation basket. However, price stability came under pressure in 2016, annual average inflation reaching 10.9 per cent. This trend continues and year-on-year inflation stood as high as 20.2 per cent in March 2017, before lowering to 15.3 per cent in December 2017 (Statistics Sierra Leone, 2017a, 2018). As a result, the Bank of Sierra Leone raised monetary policy rates to 14.5 per cent in December 2017. This was the sixth step increase since September 2016, when the monetary policy rate was set at 9.5 per cent. Average total money supply increased by almost 14 per cent from 2015 to 2016 (Bank of Sierra Leone, 2017c). One reason for this was the more than 30 per cent surge in credit to the Government, from almost 2.7 trillion leone (12 per cent of GDP) at the end of 2015 to more than 3.6 trillion (15 per cent of GDP) at the end of 2016, to deal with the dual shock of Ebola and the closure of iron ore mining (Bank of Sierra Leone, 2017c).

Sierra Leone's banks accorded 38 per cent of total loans to commerce and financial institutions, 20 per cent to construction and another 14 per cent to service companies. Although agriculture is the biggest economic sector, it only receives 6 per cent of total loans.

The leone, Sierra Leone's currency, has depreciated substantially in recent times. From mid-2011 until mid-2014 it was stable at around 4300 leones to the United States dollar. Since

Figure 4: Inflation and interest rates



Source: Statistics Sierra Leone, (2017a).

then, it has depreciated steadily to around 7600 leones in October 2017, where it has since stabilized (as at March 2018). This increases the burden on Sierra Leone, a country with a structurally negative trade balance and substantial food imports. Currency depreciation causes domestic food prices to rise and hence drives inflation. In 2015 and 2016, inflation for food items was one of the key drivers, 1.7 per cent higher than overall inflation (Statistics Sierra Leone, 2017a). This led to negative effects, particularly for the poor, who spend a higher proportion of their income on food. This can also be seen in the current account of Sierra Leone, presented in detail in the next section.

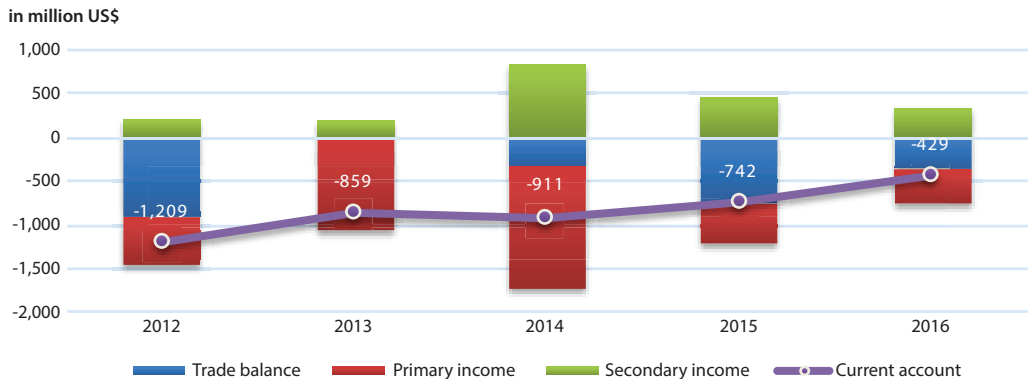
3.4 Current account

Sierra Leone has substantially reduced imbalances in the balance of payments and reduced its current account balance from -US\$ 1.2 billion (31.8 per cent of GDP) in 2012 to -US\$ 428 million (11.6 per cent of GDP in 2016) (see also figure 5). Driving factors behind this development are increased exports since iron ore mining began, reduced imports and payments for services, and increases in current transfers during the Ebola epidemic and its aftermath. Transfers are expected to fall in the medium term because of the reduction in World Bank budget support (IMF, 2016). The future of iron ore mining depends on world prices, leaving further developments and export earnings uncertain. During the height of iron ore mining in 2013, Sierra Leone's exports reached 6.5 trillion leones (30.5 per cent of GDP), dropped during the Ebola epidemic and the closure of iron ore mining to 2.6 trillion leones in 2015 (12 per cent of GDP), then started to recover, reaching 3.9 trillion leones in 2016 (16.3 per cent of GDP). Conversely, imports of merchandise fluctuated only slightly from 7 trillion leones (42.4 per cent of GDP) in 2012, rising to 7.7 trillion leones (35.7 per cent of GDP) in 2015 and falling back to 6.9 trillion leones (28.9 per cent of GDP) in 2016.

In 2016, Sierra Leone's merchandise exports consisted predominantly of minerals: 25 per cent diamonds; 21 per cent iron ore; 18 per cent rutile and 8 per cent bauxite. Cocoa, coffee, gold and fish product exports were far less significant (figure 7). The country's imports are more diversified than its exports, the major product categories being food (28 per cent, consisting to a large extent of rice), machinery and transport equipment, mineral fuels, manufactured goods and chemicals (figure 8). In 2016, exports went primarily to Europe (72 per cent) and Asia (25 per cent), while only 1 per cent of exports went to Africa. Imports originate, in descending order, from Asia (47 per cent), Europe (25 per cent), America (15 per cent) and Africa (13 per cent). Considering trade with Africa alone, 75 per cent of exports go to ECOWAS countries, while 72 per cent of imports originate from this regional bloc.

Informal cross border trade is common in Sierra Leone and a pilot study by Mahoi, Jibao and Sandy (2015) found that only 23 per cent of surveyed traders agreed that clearing processes at land borders had improved in recent times. The survey also found that traders only paid on average 62 per cent of the required taxes. One reason is that taxes are often based on quantity and not on value, e.g., per truckload of a given product, not taking into account different qualities. Survey respondents also said that they paid border officials to lower their

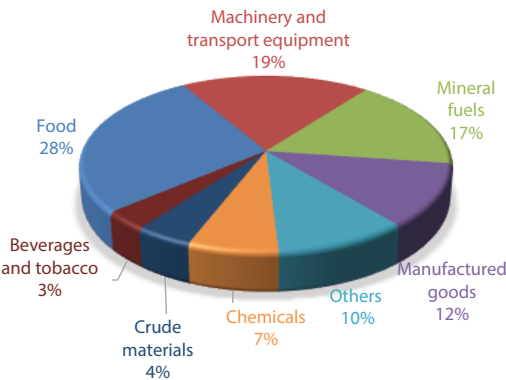
Figure 5: Current account balance



Source: Bank of Sierra Leone (2017a).

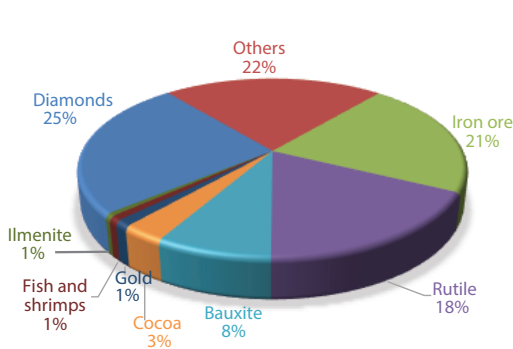
border tax rates, suggesting corruption at the border. Reasons given for conducting informal trade include inability to pay the correct taxes, too high tax rates, an unfair tax system and the fact that formal border posts are located too far from business areas. More than 20 per cent of surveyed traders also said they experienced loss of goods to customs and police officers and multiple and arbitrary charges for goods.

Figure 6: Composition of imports (2016)



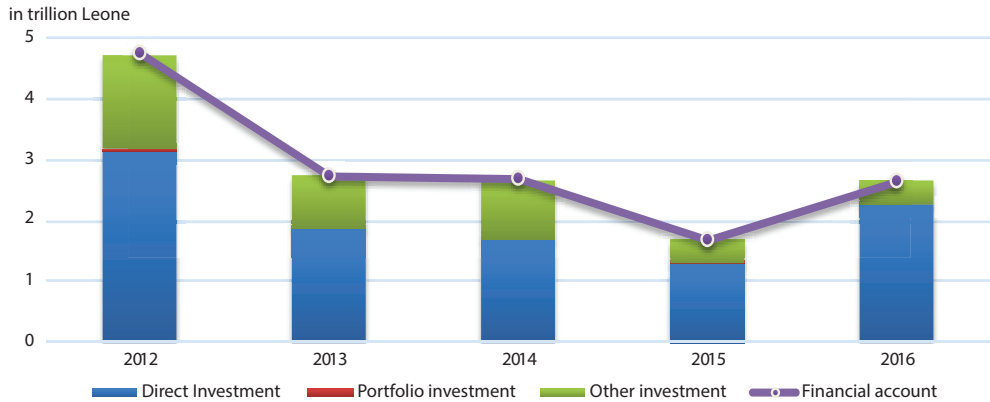
Source: Bank of Sierra Leone (2017b).

Figure 7: Composition of exports (2016)



3.5 Capital and financial accounts

Sierra Leone's financial account balance fell from almost 5 trillion leones (28.6 per cent of GDP) in 2012 to 1.7 trillion leones (7.7 per cent of GDP) in 2015, when the double shock of Ebola and the closure of iron ore mining hit the country (figure 8). In 2016, direct investment in particular picked up, reaching 2.3 trillion leones (9.5 per cent of GDP) and lifting the financial account to 2.7 trillion leones (11.1 per cent of GDP). This trend continued in 2017

Figure 8: Financial account balance

Source: Bank of Sierra Leone (2017)

and is expected to continue in the near future (IMF, 2016). Eighty-five per cent of direct investment goes into the iron ore sector, indicating its huge growth potential in the coming years. Reserves increased from less than two months of imports in 2011 to 3.6 months of imports in 2016, which translates to US\$ 580 million (IMF, 2016).

Social developments

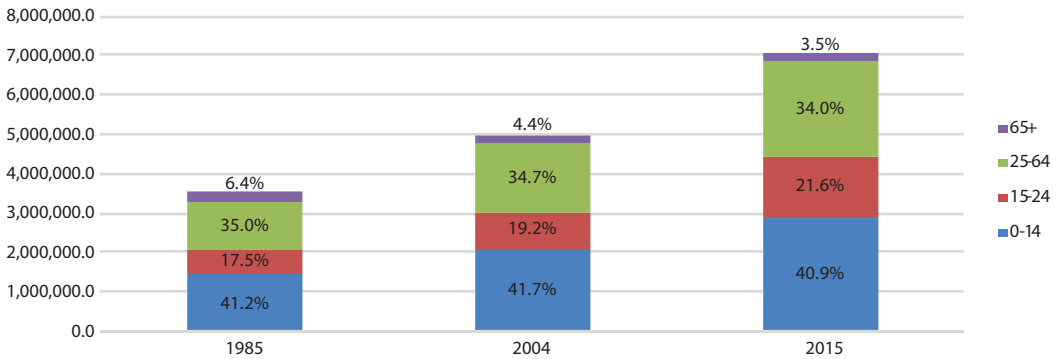
4.1 Demography

Sierra Leone's population stood at 7.1 million in 2015, with a density of 990 inhabitants per km², annual population growth of 3.2 per cent being recorded between 2004 and 2015 (Statistics Sierra Leone, 2016).⁴ This is a substantial increase from the average annual growth of 1.8 per cent during the period 1985–2004, but it is important to remember that civil war plagued Sierra Leone between 1991 and 2002. Population growth varies substantially by region, being highest, at 4.2 per cent from 2004 to 2015, in the Western Area, which includes Freetown. The lowest growth was recorded in the Southern region, with growth of 2.5 per cent. Population growth has consistently been highest in the Western Area since 1963. There are various explanations for this, including that access to better sanitation facilities, health care and public services in general is more prevalent in urban areas (World Bank and Statistics Sierra Leone, 2013). This in turn leads to lower mortality rates. Another explanation is internal migration whereby rural populations move to urban centres.

In the period 2004–2015, the population grew by 42.2 per cent, but the 65-years-and-over age group grew by only 12 per cent. This led to a slight improvement in the overall dependency ratio from 0.86 in 2004 to 0.8 in 2015, or from 0.12 to 0.06 for the aged dependency ratio, and highlights the possibility for increased investment in the coming years due to lower requirements to spend money on the younger and older section of society.⁵ This trend can also be seen in the employment to population ratio of those aged 15 years and over, which increased from 63.6 per cent in 2004 to 65 per cent in 2017 (World Bank, 2017a). The 15–24 age group steadily increased as a proportion of overall population, from 17.5 per cent in 1985 to 21.6 per cent in 2015 (figure 9). In 2015, the 0–4 age group numbered around 940,000, less than the 5–9 cohort, which stood at about 1.1 million. One explanation is a lower fertility rate in 2015, at 5.2 children per woman as opposed to 6.1 in 2004; another is under-reporting of children under the age of five (World Bank and Statistics Sierra Leone, 2013). Fertility rates for 15–19 year olds are at a relatively high level of 125 per 1,000 women, with a lower rate of 82 in urban and a higher rate of 155 in rural areas. This urban/rural divide continues for all age groups.

⁴ Sierra Leone conducted population censuses in 1985, 2004 and 2015.

⁵ The overall dependency ratio is the ratio of the number of children (0–14 years) and older persons (65 years and over) to the working-age population (15–64 years). The aged dependency ratio only considers the ratio of older persons to the working-age population.

Figure 9: Population

Source: Sierra Leone Central Statistics Office (1995), Statistics Sierra Leone (2008), Statistics Sierra Leone (2016).

Fertility peaks at age 20–24 (257 per 1,000) in rural areas and a little later at 25–29 (168 per 1,000) in urban areas.

The 2015 census further shows that 59 per cent of the population lived in rural areas and 41 per cent in urban areas. Information on civil registration shows that, overall, 43.1 per cent of the total household population hold birth certificates: 45.1 per cent of males and 41.1 per cent of females. This percentage increases to 65.1 per cent when only the age group of 0–4 is considered, indicating recent government efforts to strengthen civil registration.

4.2 Poverty and employment

Despite relatively low real per capita GDP growth, poverty decreased substantially from 2003 (66.4 per cent) to 2011 (52.9 per cent).⁶ There is, however, a significant difference between urban and rural poverty rates: in rural areas poverty declined from 78.7 per cent in 2003 to 66.1 per cent in 2011, while urban poverty declined from 46.9 per cent to 31.2 per cent during the same period. Despite the overall reduction in poverty, it increased in the Freetown metropolitan area from 13.6 per cent to 20.7 per cent. Possible explanations of this are migration of rural poor to urban areas, out-migration of wealthier individuals from Freetown and higher rates of non-response by the wealthy to the Sierra Leone Integrated Household Survey in 2011 as compared with 2003 (World Bank and Statistics Sierra Leone, 2013). Inequality, measured by the Gini coefficient, decreased from 0.39 in 2003 to 0.32 in 2011 but varies by region, ranging from 0.21 to 0.42 in 2011. It is generally lower in rural areas and higher in urban areas, with the notable exception of Freetown. In 2012, the Gini coefficient in Freetown stood at 0.27, a fall from 0.31 in 2003. In 2011, poverty was generally lower for female headed-households, at 43.8 per cent, compared to 47.5 for male headed-households. This difference is more pronounced in rural areas, where the difference is 57.1 for females to 61.4 for males. Moreover, there is a strong inverse relationship between poverty

⁶ Poverty is defined as annual consumption below the equivalent of 750,326 leones in 2003 and 1,625,568 leones in 2011 (World Bank and Statistics Sierra Leone, 2013). The last Sierra Leone Integrated Household Survey (SLIHS) was undertaken in 2011 so no newer data on poverty is currently available.

and education; poverty is also higher if the household head is employed in agriculture and the larger the household (World Bank and Statistics Sierra Leone, 2013).

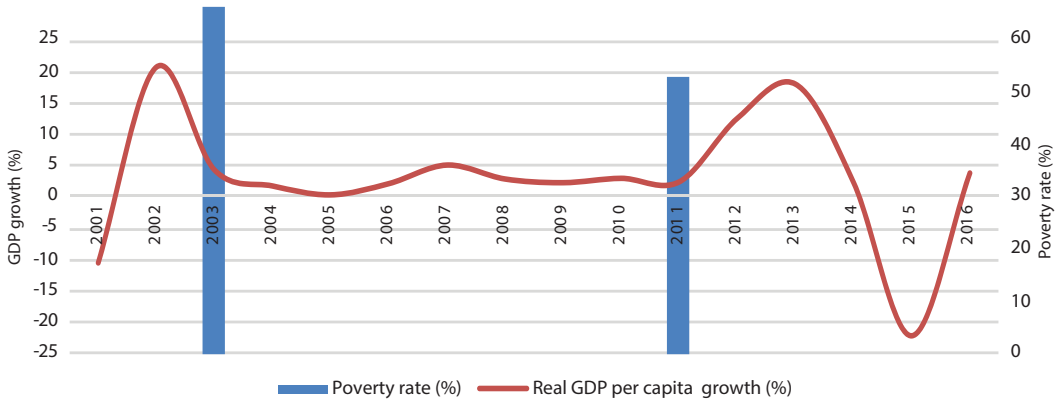
The 2014 Labour Force Survey revealed that about 65 per cent of the working age population were active in the labour market (Margolis, Rosas, Turay and Turay, 2016). There are differences between age groups: for example, only 55.7 per cent of the 15-35 age group are in the workforce. Young women are more active in the labour market (57.6 per cent) than young men (53.4 per cent). One explanation is that secondary education is more prevalent among men and takes place at a young age. This lack of education of women leads to lower employment outcomes in later years and is detrimental to the long-term welfare of women. Of the non-youth population, 88.2 per cent of men are active, compared with only 78.6 per cent of women. Reasons for absence from the labour market range from being at school or in training (54.1 per cent), lack of resources to start a business (16.1 per cent), taking care of the household (9.8 per cent) and lack of skills (4.5 per cent).

The total unemployment rate in 2014 was 4.3 per cent, but varied from 0.8 per cent in rural areas to 11.2 per cent in the Western Urban area which includes Freetown, and is generally higher for youth and for men.⁷ Surprisingly, the duration of vocational training is positively related to unemployment. One explanation for this is that formal school education is the most important factor in determining labour market success and only those individuals without formal education undertake vocational training lasting several years (Margolis and others, 2016).

Almost 60 per cent of employment is agricultural self-employment. A further 31.3 per cent is non-agricultural self-employment, mostly in microbusinesses involving retail sales, while 7 per cent are in non-wage employment. Only 9.5 per cent are in wage employment. Wage employment varies from 52.9 per cent in the construction sector, 44.8 per cent in the mining and extractive industries sector, 19.6 per cent in services, 19.1 per cent in manufacturing and utilities and very few in agriculture, fishing and forestry (0.8 per cent). Underemployment is also prevalent and almost one third of all workers would like to work more hours.

Informality is highly prevalent in Sierra Leone. Of the 9.5 per cent in wage employment, 35 per cent are informally employed without written contracts, paid leave, medical benefits or pension benefits and do not pay income tax (Margolis and others, 2016). Moreover, informal wage jobs pay on average about 13 per cent lower wages. One explanation for this is that informal wage workers have on average less education than those in the formal sector (8.5 years compared with 12.2 years). Considering wage work, 74 per cent of women in wage work are formally employed as opposed to only 61 per cent of male wage workers. In non-agricultural self-employment, 88 per cent of jobs are informal.

⁷ The unemployment rate (4.3 per cent) refers to total unemployed divided by total workforce (working-age population unemployed plus employed, excluding those who do not participate in the labour market (Margolis and others, 2016).

Figure 10: Poverty and economic growth

Source: World Bank Poverty Reduction and Economic Management Unit and Statistics Sierra Leone (World Bank and Statistics Sierra Leone, 2013) and World Bank and OECD (2017).

4.3 Health

Health care in Sierra Leone is a major constraint to sustainable development. The maternal mortality rate is among the highest in the world, standing at 1,360 deaths per 100,000 live births in 2015.⁸ Child mortality rates are also very high, particularly infant mortality and under-five mortality (figure 11). Child mortality is higher in rural areas, with the exception of neonatal mortality, which is higher in urban areas. A mother's educational attainment and household wealth lower child mortality (Statistics Sierra Leone and ICF International, 2014). Moreover, Sierra Leone's life expectancy at birth in 2015 was the world's lowest at 50.1 years, with only a slight difference between women (50.8 years) and men (49.3 years) (WHO, 2016b). This is nonetheless a substantial improvement over the 40.8 years, recorded in 2002 when the civil war ended.

The fragility of Sierra Leone's health sector was apparent during the Ebola epidemic and was also noted in the report by the Economic Commission for Africa (2015). The authors noted that "The rapid expansion of Ebola revealed the low capacity to react and manage an infectious disease outbreak among most African countries' health systems, exposing few means, even more limited knowledge among health personnel and the systems' low ranking among government priorities". Ross, Welch and Angelides (2017) note that, during the epidemic, political manoeuvring and probity, inadequate financial agility, lack of coordination, partner ambivalence towards response structures, and tensions in the key relationships were among the issues creating challenges that affected the response.

⁸ Data from international sources are used to analyse the historical trend. The most recent national data put maternal mortality at 1,165 per 100,000 live births in 2013 (Statistics Sierra Leone and ICF International, 2014).

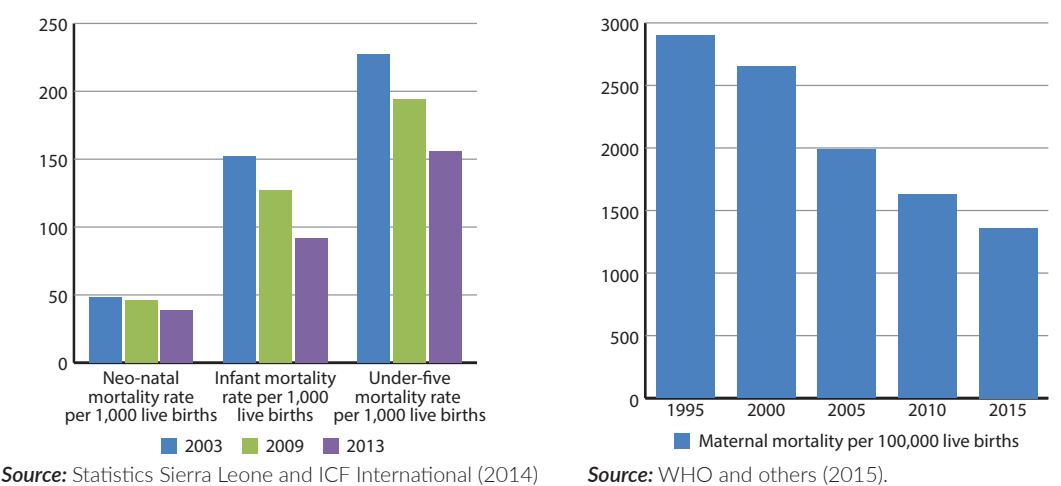
Box 3: Sierra Leone’s Free Health Care Initiative

To address these issues, the Government of Sierra Leone in 2010 launched a Free Health Care Initiative (FHCI) for pregnant women, lactating mothers and children under the age of five. Witter and others (2016) conducted a review of the Initiative and found that each element of the priority interventions (logistics, drugs and supplies, facilities improvement, human resources for health, strengthening oversight, coordination and management, communication of policy, monitoring and evaluation) was relevant.

Ensuring coherence and coordination within the health system is essential. The authors further show that the Initiative revitalized the health sector, including aspects such as sector governance, staff management and pay, allocating funds to their planned destinations, improving infrastructure and establishing monitoring and evaluation mechanisms. It also improved access, attitudes, and the accountability of health care while increasing awareness of danger signs for mothers and children. Measuring the direct impact of the Initiative on mortality rates was difficult, however, since civil registration and vital statistics in Sierra Leone lack overall robustness, but improvements are clearly visible from the data presented in figure 11. The authors point out that inequalities in the usage of healthcare, both in terms of geography and household wealth, were reduced. One shortcoming identified was poor logistical arrangements for medical supplies, leading to missing stock and non-disposal of expired drugs. Nonetheless, they conclude that the Initiative is a cost-effective improvement of Sierra Leone’s health system.

If not a robust statistical test, indications of success are the fall in the proportion of underweight children from 21 per cent in 2008 to 16 per cent in 2013 and more widespread ownership of insecticide-treated mosquito nets from 37 per cent to 64 per cent (Statistics Sierra Leone and ICF International, 2014). This is a big step forward in tackling malaria, the leading cause of morbidity and mortality in children under the age of 5 and pregnant women. Moreover, average total health expenditure per capita increased from US\$ 48 in 2008–2011 to US\$ 77 in 2011–2014 (WHO, 2017).

Figure 11: Health

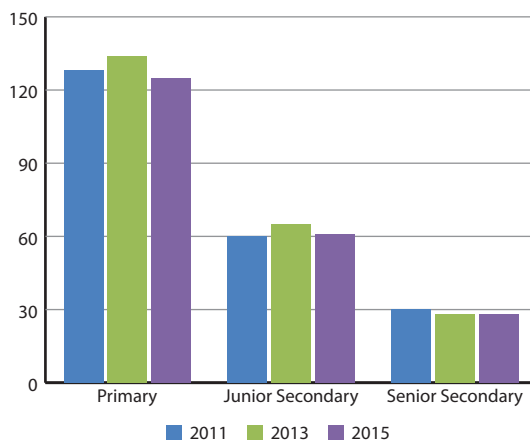


4.4 Education

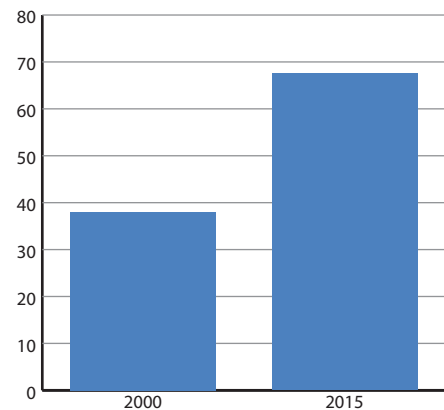
Literacy rates among 15–24 year olds increased by a staggering 30 percentage points to 68 per cent between 2000 and 2015 (figure 12). As shown by Margolis and others (2016), formal education is an important predictor for success on the labour market, which in turn improves health outcomes (Statistics Sierra Leone and ICF International, 2014). In an environment of rapid population growth, gross enrolment rates at primary and junior secondary school increased between 2011 and 2013, while senior secondary enrolment decreased slightly (figure 12). The slight downward trend in the school year 2014/15 can be explained by the Ebola crisis, leading to the closure of schools for eight months, with only reduced education taking place through radio programmes (Powers, Azzi-Huck, Ramakrishnan and Zhang, 2016). When schools reopened in April 2015, they were cleaned and strict hygiene rules were introduced but some parents may not have sent their children to school for fear of infection, leading to lower enrolment rates in 2015. To make up for lost learning, an accelerated syllabus focussing on core subjects was introduced for the next two academic years.

Gender parity was reached in primary school education in 2012, whereas females represented only 48 per cent of pupils in junior secondary schools and 44 per cent in senior secondary schools in 2015 (Sierra Leone Ministry of Education, Science and Technology, 2017). Female education is further complicated by the fact that 28 per cent of adolescents begin childbearing at the age of 15–19 (Statistics Sierra Leone and ICF International, 2014) and visibly pregnant girls are not allowed at school and or to sit exams in Sierra Leone (Denney, Gordon and Ibrahim, 2015). Another reason for low education outcomes in Sierra Leone is child labour, which involves 44 per cent of children aged 5–11 (Statistics Sierra Leone and ICF International, 2014) and is slightly more prevalent among boys (45.3 per cent) than girls (43.5 per cent).

Figure 12: Education



Source: Sierra Leone Ministry of Education, Science and Technology (2017).



Source: Statistics Sierra Leone (2008) and Statistics Sierra Leone (2016).

Expenditure on education as a percentage of total government spending stood at an average of about 14 per cent in the period 2008–2014 (United Nations Educational, Scientific and Cultural Organization (UNESCO), 2017).

4.5 Gender

The status of gender equality and women's empowerment is measured in terms of the key areas indicated in the pie chart in Box 4. These areas are important for the improvement of women's lives and their contribution to Africa's sustainable and inclusive growth.

To determine the actual extent of gender inequality and achieve the goal of measuring gender equality and women's empowerment in Africa, the Economic Commission for Africa has developed a monitoring tool, the African Gender Development Index (AGDI), which allows policymakers to assess their own performance in implementing policies and programmes geared towards ending women's marginalization.

The calculation for the scoring is based on Gender Status Index (GSI) data. The GSI is one of the components of the African Gender Development Index. For each key indicator, the score is calculated by taking the female to male ratio of the indicator values, multiplying it by 10 and rounding the result up or down to the nearest whole number. A score of zero represents the highest level of inequality, 5 shows middle parity level while 10 represents perfect parity. Parity levels exceeding 10 represent situations where women have outperformed men, irrespective of the level of development of the area being assessed.

Most data used to calculate scoring are drawn from the latest available national data sources. However, for a few indicators where countries have no disaggregated data, international data are used. The sources include the website of the Government of Sierra Leone, Statistics Sierra Leone and ICF International (2014), Margolis and others (2016), UNESCO (2017), World Bank (2015), UNDESA (2017), UNICEF and WHO (2015), and the Interparliamentary Union.

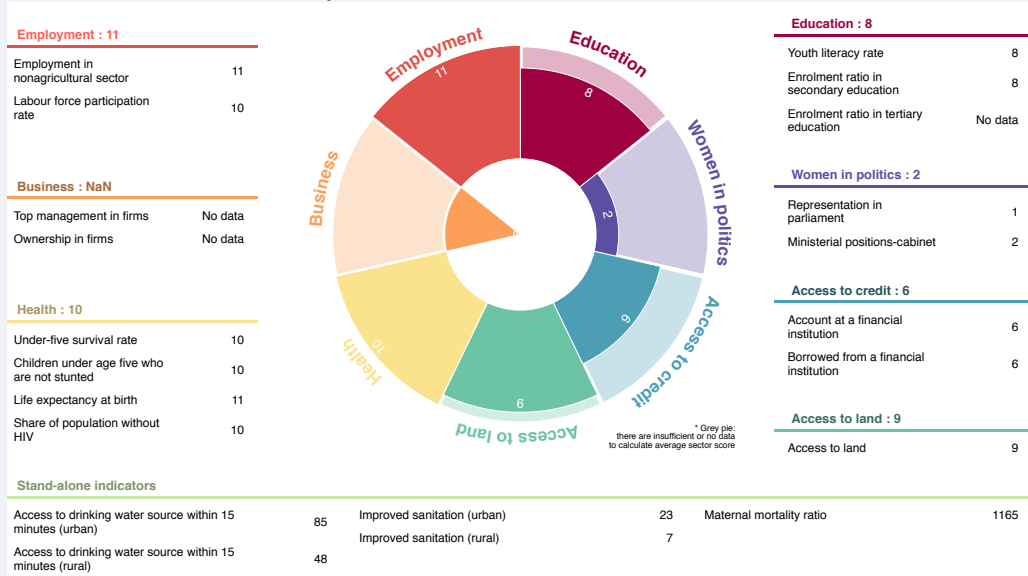
Box 4: Gender equality and women's empowerment – Sierra Leone

In Sierra Leone, there is gender equality for all health indicators and labour force participation. Females are at a slight advantage to males in terms of employment in non-agricultural sectors. Margolis and others (2016) report that in 2014, 40 per cent of women were employed in the non-agricultural sector, compared to 38 per cent of men.

In relation to access to land and the youth literacy rate, women are at a slight disadvantage to men, with parity scores of 9 and 8 respectively. There is significant gender disparity in favour of males in access to credit and, in particular, political representation. According to data from World Bank (2015), the gender parity index for the proportion of the population with an account at and who borrowed from a financial institution was 6. In a cabinet of 23 ministers, four are female, and of a total of 131 members of parliament, 15 are women.

Finally, the maternal mortality ratio stood at 1,165 per 100,000 live births in 2013, one of the highest in the world (Statistics Sierra Leone and ICF International, 2014). Access to a drinking water source is 85 per cent in urban areas and 48 per cent in rural areas, while access to improved sanitation is below 25 per cent for both rural and urban areas.

African Gender and Development Index



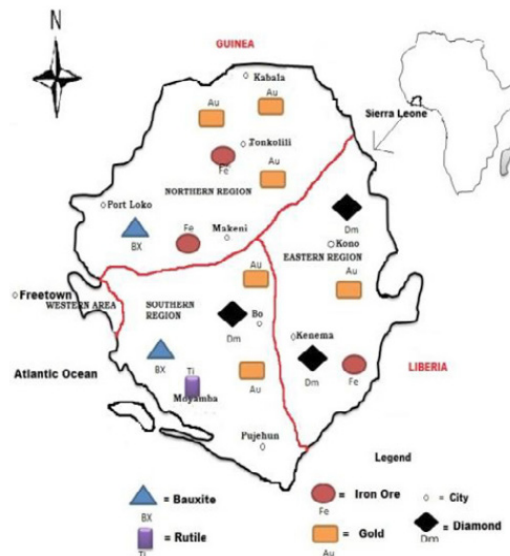
Source: ECA African Centre for Gender calculations.

Major policy challenges: the mining sector

5.1 Mining in Sierra Leone

In Sierra Leone, organized mining activities started as long ago as the 1920s, with the mining of bauxite along the Flab to Waia road in the north of the country (Schwartz, 2005). The mining sector became more prominent in the early 1930s when diamonds were discovered in south-eastern Sierra Leone (World Bank Sustainable Development Unit, West Africa, and Environment Department, 2008). In 1934, the Sierra Leone Selection Trust (SLST) was granted a monopoly right to mine, prospect for and market diamonds throughout the country (Greenhalgh, 1985). The initial capital of the Trust was provided by the Consolidated African Selection Trust Ltd (CAST), which had various mining operations in West Africa. In 1970, the Government of Sierra Leone, in collaboration with the Sierra Leone Selection Trust, decided to form a joint mining venture that led to the establishment of the National Diamond Mining Company (NDMC).

Figure 13: Distribution of key mineral resources in Sierra Leone



Source: Jalloh and others (2013)

According to Fanthorpe and Gabelle (2013), large-scale industrial mining began in 1930, when the Sierra Leone Development Company (DELCO) obtained the rights to mine the iron ore deposit at Marampa (Port Loko District), which had been identified by a colonial geological survey a few years earlier. The company built a shore-to-ship offloading facility at Pepel in the Sierra Leone River estuary and a railway to connect it directly to the mine site. A few years after the company began production, minerals jumped to 57 per cent of Sierra Leone's exports by value, the export sector having previously been dominated by palm products and agriculture. By 1952, just before the artisanal diamond boom, iron ore accounted for 59 per cent of Sierra Leone's mineral exports by value, with diamonds accounting for 32 per cent. However, the 1973 oil crisis and the subsequent world economic downturn adversely affected the company's profitability at a stroke and loans totalling £2.25 million from the Government of Sierra Leone could not forestall its voluntary liquidation in 1975 (Fanthorpe and Gabelle, 2013).

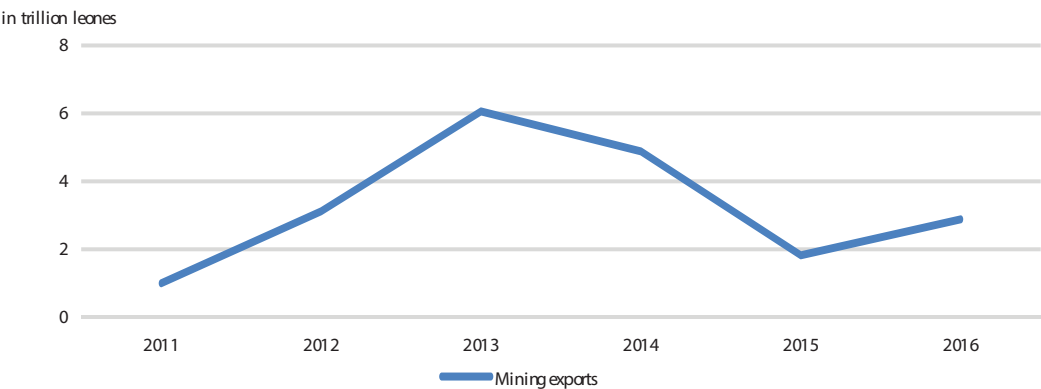
Currently, a wide range of mineral resources, including diamonds, gold, bauxite, rutile, iron ore, ilmenite, and zircon are mined in Sierra Leone. Figure 14 gives an overview of the geographical distribution of mining resources in the country, with bauxite and rutile being present in the western parts, iron ore mainly in the north and diamonds in the east, while gold is found throughout the country. The mineral sector is made up of three key subsectors: (i) the large-scale non-precious minerals subsector responsible for the production of iron ore, rutile and bauxite; (ii) the large-scale precious minerals subsector for diamond production; and (iii) the artisanal and small-scale production of precious minerals – diamonds and gold. Export earnings from the country's key minerals have risen steadily, from 1.05 trillion leones (8.2 per cent of GDP) in 2011 to 6.1 trillion leones (28.5 per cent of GDP) in 2013, while export earnings from iron ore alone stood at 4.6 trillion leones (21.6 per cent of GDP) (see figure 15). However, export earnings from the booming iron ore subsector plummeted to below 0.4 trillion leones (1.9 per cent of GDP) in 2015 as a result of the Ebola epidemic in 2014 coupled with global commodity price shocks that adversely affected the price of iron ore.⁹ The resumption of iron ore mining in 2016 saw a return of mining export growth from 1.9 trillion leones (8.8 per cent of GDP) in 2015 to 2.9 trillion leones (12.1 per cent of GDP), with iron ore making up 29 per cent of mining exports.

The mining sector contributed 18.4 per cent of the country's GDP in 2013 and in 2016 accounted for 2.6 per cent of GDP (Statistics Sierra Leone, 2017b). The mining sector also accounted for more than 90 per cent of the country's total exports in 2013 and 2014, before dropping to around 75 per cent in 2015 and 2016 (Bank of Sierra Leone, 2017d).

As can be observed in figure 15, the mining sector suffered a slump between 2007 and 2009 which caused real GDP growth to decrease from 8.1 per cent in 2007 to 3.2 per cent in 2009. The boom in the mining sector in 2012 and 2013 led to overall growth rates of over 15 per

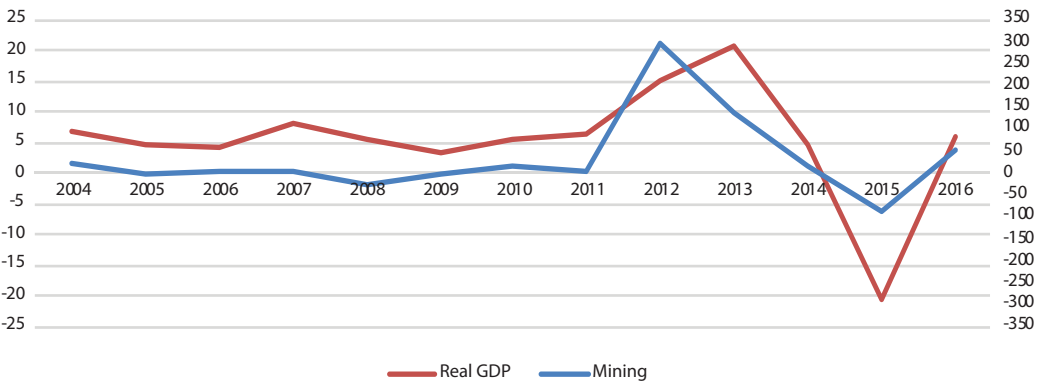
⁹ Iron ore spot prices declined from US\$ 154 in early 2013 to US\$ 68 at the end of 2014 (World Bank, 2017b).

Figure 14: Sierra Leone's mineral exports 2011 – 2016



Source: Bank of Sierra Leone.

Figure 15: Real GDP and mining growth rate 2004–2016,



Note: Axis on the left is real GDP growth, while axis on the right is mining growth

Source: Statistics Sierra Leone (2017b)

cent. However, the Ebola epidemic that led to a drastic decline in mining activities in 2015 and the low world market prices for iron ore caused mining sector growth to fall to -88.1 per cent in 2015. Overall growth of -20.5 per cent in 2015 was the lowest that Sierra Leone had experienced in recent decades.

The main fiscal instruments applicable to the mining sector are corporate income tax and mineral royalties, which are regulated by the Mines and Minerals Act 2009, the Income Tax Act 2000 and the relevant regulations and amendments. Other revenue streams from the mining sector include exploration licences, mining licences, surface rental, environmental impact assessment fees, environmental impact monitoring fees, agricultural development funds and community development funds and value-added tax, personal income tax and sales taxes. Fiscal revenue from mining licences dropped from 1.4 per cent of GDP in 2014 to 0.6 per cent in 2016, while total government receipts from the extractive industry in 2016 stood at 0.15 trillion leones (Kargbo, 2016).

Mining activities are capital intensive and employ relatively little labour, but wages for mining jobs are among the highest in Sierra Leone (Margolis and others, 2016). Nonetheless, thanks to the booming iron ore industry, mining accounted for 7 per cent of total employment in 2012 and 2013 (Statistics Sierra Leone, 2014). Employment dropped substantially in 2014, however, when only 1.5 per cent of employment could be attributed to mining (Margolis and others, 2016). This percentage fluctuates substantially according to region so that employment is higher in Kono (6.1 per cent of employment), Bo (4.6 per cent), and Kenema (4.1 per cent). Interestingly, 5.4 per cent of migrants work in mining activities as opposed to 0.8 of non-migrants. Wage employment is prevalent, with 44.8 per cent of workers while 51 per cent are own-account workers.

5.2 Issues and challenges

Brima (2004) argues that the immediate and most obvious effects of mining in Sierra Leone are widespread environmental and social degradation, the main environmental and social impacts being similar to those in other low-income countries. Since mining activities began in Sierra Leone, there has been clear evidence of land and soil degradation resulting from rudimentary and inefficient ways of carrying them out. Brima notes that there are several instances of uncontrolled pit digging with no routine backfilling, and destruction of vegetation and topsoil. Most artisanal mining activities have resulted in river bank erosion affecting gravel and soils, with adverse downstream effects on health and agriculture. In most mining areas, the disruption of natural drainage and silting of drainage courses has caused water quality to deteriorate and encouraged the breeding of mosquitoes and other microorganisms that pose serious health hazards to the population. In most mining areas, discharge from machines, including seepage, has caused significant environmental pollution affecting bodies of water and agriculturally viable land. Drug addiction and overcrowding in mining areas have intensified health problems and created an insecure environment for the youth who are most vulnerable to such threats.

Brima (2004) further observes that the influx of immigrants, both regional and international, in mining communities and districts has resulted in increased levels of anti-social activities, including crime, drug abuse and prostitution. He further argues that many sacred bushes and shrines have been desecrated and turned into mining sites. These issues led to increasingly conflictual relationships between the authorities and different sections of society and provided fertile ground for conflict and political manipulation.

According to Fanthorpe and Gabelle (2013), the current legislation governing the mining sector in Sierra Leone has failed to ensure that the economic and social rights of affected communities are taken into account in the assessment of mining licence applications. According to the Mines and Minerals Act of 2009, mining companies may not carry out operations that destroy private houses, public infrastructure, burial grounds or land under crops without the written consent of the local authorities or the Minister of Mineral Resources. However, the Minister has the power to enforce consent if it is deemed to have been withheld 'unreasonably'. Furthermore,

while applicants for artisanal and small-scale mining licences must supply proof of community consent to use local land for mining, applicants for large-scale mining licences are only required to provide evidence that they have consulted 'interested and affected parties' (Fanthorpe and Gabelle, 2013). The requirement to consult, however, does not grant communities a right of input into either the terms of mining licence agreements or the monitoring of environmental and social management programmes.

Mining activities carried out in towns have led to the destruction of dwelling houses (Brima, 2004). In many instances, pits have been dug beneath houses, thereby endangering the lives of the inhabitants. In several cases, dwelling houses sank into pits that had been dug underneath them. Mining has sometimes made roads impassable or left them in a deplorable condition. This has made other economic activities such as trade, particularly in local foodstuffs and other commodities, virtually impossible or very burdensome (Brima, 2004). People are highly dependent on items brought in from other parts of the country or imported from abroad.

Brima (2004) further notes that inhabitants in Kimberly mining areas are constantly harassed out of their homes whenever mine-blasting is taking place. No provision has been made for their relocation, although that was a precondition before mining commenced. There is hardly any form of protection from local and national authorities or company officials (Brima, 2004). Even the workers and security personnel of mines are not fully protected from mining blasts.

5.3 Reforms and policies to support structural transformation in Sierra Leone through the mining sector

The Ministry of Mineral Resources is the main government body responsible for the management of mineral resources in Sierra Leone (World Bank and others, 2008). Its key task is to develop policies and programmes for the systematic and economic exploitation of mineral resources and to formulate appropriate regulations for the mining industry and related activities to ensure that Sierra Leone derives maximum benefit from its mineral resources. In line with its mission, the Ministry of Mineral Resources is responsible for: (i) formulating mineral policies; (ii) undertaking mining negotiations; (iii) granting mining concessions; (iv) conducting mining and mineral explorations; (v) conducting geological surveys; (vi) controlling explosives for mining; (vii) inspecting mining equipment and sites; and (viii) collaborating with relevant national and international organizations. Unfortunately, the Ministry does not have the physical resources or the quality and number of staff to carry out these responsibilities. Fischer and Keili (2005) observed that financial support to the Ministry was paltry and far short of its operational needs. The environmental division of the Ministry is grossly understaffed, with only very few workers responsible for environmental issues. Poor working conditions and an escalating cost of living posed significant challenges to all levels of staff in the Ministry (World Bank and others, 2008).

With a view to addressing some of the challenges confronting the Ministry of Mineral Resources in relation to managing the country's mineral resources, the Government of Sierra Leone established the National Minerals Agency (NMA) by Act of Parliament. The primary responsibility of the Agency under the National Minerals Agency Act 2012 is "to promote the development of the mineral sector by effectively managing the administration and regulation of mineral rights and minerals trading in Sierra Leone". The Agency is also responsible for providing technical and other support to the mineral sector, including geological surveys and data collection. In particular, the National Minerals Agency was specifically designed to carry out the following tasks: (i) effectively administer and enforce the Mines and Minerals Act 2009; (ii) advise the Minister of Mineral Resources on policy matters relating to mining; (iii) make recommendations to the Minister of Mineral Resources for amendments and other improvements to mining-related laws and regulations; and (iv) to formulate and implement plans and systems for managing responsible development of the minerals sector. The Agency was also mandated to take over the functions of the Government Gold and Diamond Office, which include: buying gold and diamonds at competitive prices; collecting levies on diamond and gold exports; and instituting more effective measures in the marketing of gold and diamonds by ensuring international standards in the valuation process.

Economic diversification and structural transformation are a key part of Sierra Leone's Agenda for Prosperity 2013–2018. Lessons can be learned from Botswana, where diamond cutting, polishing and sales are undertaken locally to create value added and employment and to transfer know-how. Formal education and specific vocational training can lead to qualified jobs in this sector. This know-how can then be used in other parts of the manufacturing sector and support structural transformation in the economy.

Since the end of the Sierra Leone's civil war in 2002, the Government has adopted laws and regulations to reform the mining sector with a view to structural transformation. In 2003, for example, the Government established a Core Minerals Policy aimed at attracting private investment and ensuring that Sierra Leone's wealth supports economic and social development. In 2004, the Government enacted the Investment Promotion Act to give foreign investors guarantees in terms of expropriations, transfer of funds and dispute settlement.

The Environment Protection Agency Act 2008 ensures that mining projects can only be undertaken after an environmental impact assessment and issuance of an environmental impact assessment licence. Furthermore, the Mines and Minerals Operational Regulations of 11 July 2013 introduced requirements concerning surface, open pit and underground mining operations, reporting of mineral resources, health and safety standards, waste disposal and explosives and blasting. The Environment Protection (Mines and Minerals) Regulations of 4 July 2013 cover the environmental licensing process, environmental standards, grievance mechanisms and mine closure and contain guidance on the contents of environmental impact assessment reports and environmental management plans.

Sierra Leone has adopted a substantial volume of laws and regulations on the mining sector in recent years. This reflects a trend among governments in emerging economies towards developing more detailed and comprehensive legal frameworks for their extractive industries, often on the basis of laws and regulations adopted in more developed economies. The upside of such policies is that they provide investors with more clarity and certainty in relation to the legal framework applicable to their investments, but it also requires investors to conduct a more detailed due diligence process before making investment decisions. Going forward, investor appetite will tell whether the latest changes in the legal framework applicable to mining projects in Sierra Leone have achieved the right balance between social development, environmental protection, sustainable development and investment promotion.

The following recommendations aim to strengthen the viability of these reforms of the mining sector in Sierra Leone:

- It is essential for the Government of Sierra Leone to strengthen the technical role of the National Minerals Agency by providing adequate financial resources to meet its operational needs.
- As the Core Minerals Policy provides a blueprint for the future role of the Ministry of Mineral Resources, it is a matter of urgency for the Government to fast-track its enactment into law with a view to addressing the challenges confronting the mining sector in Sierra Leone.
- The Government should ensure that the laws governing the mining sector - environmental and labour laws - are not only well understood by mining operators, but also fully enforced with a view to mitigating environmental and labour-related problems in mining areas.
- The Government should ensure that the legal framework of the mining sector clearly addresses all mining-related issues so that no problems arise from differing interpretations of poorly drafted mining laws and regulations.

6. National data quality evaluation

Methodological note: The quality of the national data sources for key indicators in the country profile was evaluated. The result is shown in table 4. Green indicates a “good” data source, yellow a “satisfactory” source and red a source that “needs improvement”. The evaluation focused on the transparency and accessibility of each national data source. It took into consideration the timeliness and periodicity of data publishing, assessed on the basis of the punctuality of publication and the frequency of data updates in accordance with international standards. It also measured the comparability of the data series, taking into account length, definition and units of measurement. It assessed database accessibility, specifically whether the data were open and freely available to the general public, the format of the data and the ease of downloading and sharing them. Data citation, together with references to primary or secondary sources, was also assessed. Finally, the evaluation checked the completeness of metadata for data release and the completeness and clarity of the documentation and notes.

Score between 0.75 and 1	Green
Score between 0.50 and 0.74	Yellow
Score between 0 and 0.49	Red

Demography	Value	Evaluation
Population (million)	7,076,119 (2015)	1
Children (0–14 years, %)	40.9 (2015)	1
Adults (15–64 years, %)	55.6 (2015)	1
Elderly (65+ years, %)	3.5 (2015)	1
Population growth rate (average annual %)	3.2% (2015)	1
Urban population (%)	41% (2015)	1
Total fertility rate	5.2 (2015)	1
Crude death rate (deaths per 1,000)	Female: 5.62 (2013) Male: 4.97 (2013)	3
Crude birth rate (births per 1,000)	4.9 (2013)	3
Key macroeconomic and sectoral performance	Value	Evaluation
GDP, current prices (million leones)	23,874,803 (2016)	1
Real GDP growth rate (%)	6.1 (2016)	1
Inflation rate (%)	10.9 (2016)	1
Current account balance (million leones)	–4,591,176 (2016)	2
Economic trends and performance indicators	Value	Evaluation
Total imports (million leones)	6,867,273 (2016)	2
Total exports (million leones)	3,927,913 (2016)	2
Inward flows of foreign direct investment (million leones)	2,277 (2016)	2

Education and employment	Value	Evaluation
Literacy rate of 15–19 year olds, total (%)	70.3 (2015)	1
Share of employed in primary sector (%)	61.1 (2014)	4
Unemployment rate (%)	4.3 (2014)	4
Youth unemployment rate (%)	5.9 (2014)	4
Net enrolment ratio in primary education (%)	65 (2015)	1
Population below 1,625,568 leones per year (%)	52.9 (2011)	1
Health	Value	Evaluation
Prevalence of underweight under-fives (%)	16.4 (2013)	3
Under-five mortality rate (per 1,000 live births)	156 (2013)	3
Infant mortality rate per (per 1,000 live births)	92 (2013)	3
Neo-natal mortality rate per (per 1,000 live births)	39 (2013)	3
Maternal mortality ratio (per 100,000 births)	1,165 (2013)	3
HIV prevalence among 15–24 year olds (%)	1.1 (2013)	3
Proportion of births attended by skilled health personnel (%)	59.7 (2013)	3

Data sources code index

- 1 Statistics Sierra Leone
- 2 Bank of Sierra Leone
- 3 Statistics Sierra Leone and ICF International. (2014). Sierra Leone Demographic and Health Survey 2013. Freetown, Sierra Leone and Rockville, Maryland, USA.
- 4 2014 Labour Force Survey

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