

South Africa National Human Development Report 2022

Harnessing the Employability of South Africa's Youth



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Foreword

It is with tremendous pleasure that I welcome this *2022 National Human Development Report (NHDR)* for South Africa, produced in collaboration with the United Nations Development Programme (UNDP). First and foremost, the report is focused on a subject matter that is extremely important for the Government of South Africa under the leadership of H.E President Cyril Ramaphosa. This subject matter revolves around youth unemployment; much of it, as the report rightly documents, tracing its roots to the unfortunate history of colonialism, later made worse by the years of apartheid that deliberately racialised the country and completely marginalised the majority from the mainstream economy.

It is important to point out that the report has not shied away from discussing some of the significant developmental challenges we have yet to resolve, despite the passage of 28 years since we established our democracy. Youth unemployment and marginalisation from the economy is still a significant reality for too many of our young people.

The report highlights the major role of education and skills in addressing this reality. The message is clear: too many of South Africa's youth do not get the right educational foundations to prepare them for the job market, a fact that is compounded by lack of opportunities for skills acquisition and upgrading.

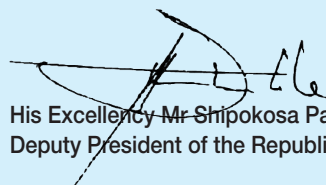
I must further commend the report for highlighting many other critical issues that deserve our attention and an honest national conversation. One such issue is the need to prepare our youth for the changing world of work, increasingly defined by the advent of the Fourth Industrial Revolution (4IR) and the pre-eminence of technology and digitisation.

It is important to note, as the report does, that some unavoidable factors, such as the COVID- 19

pandemic, have had significant impacts on the economy of South Africa, thereby exacerbating job losses. Many businesses and enterprises had to close, with women in particular bearing the brunt of the burden of these business failures.

All these and many other factors canvassed in the report should, it is hoped, trigger the necessary policy actions that can help us stem the tide of youth unemployment and avoid the possible loss of an entire generation. In this regard, it is noteworthy that there are several strategic and policy actions proposed in the report which I hope will be the basis for our discussions and actions over the next weeks and months, if not in the years ahead. I would wish to single out the proposal for a mandatory National Youth Service (NYS) programme. If properly designed and implemented, such a programme would, as the report suggests, go a long way to bring millions of young people into the economic fold. Opportunities could be created in self-driven enterprises, care and service work, social engagements in rural communities, and skills-enhancing and other self-driven initiatives in the IT and broader technology sectors.

Last but not least, let me take this opportunity, on behalf of the Government of South Africa, to thank the United Nations Development Programme for providing the crucial financial and technical assistance which facilitated the production of this timely and important report. The Office of the Deputy President and the Human Resource Development Council of South Africa are highly indebted to UNDP for this generosity, and we look forward to continued collaboration in steering the Rainbow Nation towards a bright future, one that truly reflects the brilliance and brightness of the rainbow.



His Excellency Mr Shipokosa Paulus Mashatile
Deputy President of the Republic of South Africa

Preface

I am delighted to introduce this fifth *National Human Development Report* (NHDR) for South Africa themed around youth unemployment and what it portends for the future of South Africa. I particularly welcome the distinct focus on youth unemployment as it represents one of the most pressing and critical national challenges of our times in South Africa.

Youth unemployment in South Africa is a multipronged challenge that limits the earning potential of youth, stymies business growth, threatens social cohesion, and puts pressure on public resources. There is no doubt that the high unemployment rate is a ticking time bomb. Accordingly, in addressing youth unemployment, the country will simultaneously be addressing poverty and income inequality. Addressing and tackling youth joblessness is, therefore not only sound economics but also a development imperative.

The report, in a nutshell, lays bare the various scenarios that currently describe the worrisome trend of increasing youth unemployment in South Africa - currently estimated at 59,6% and 40,5% for youth aged 14-24 years and 25-34 years respectively - according to the Quarterly Labour Force Survey (QLFS) for Q3: 2022. In the meantime, the overall national unemployment rate as the report observes, stands at 32.9 percent, but even then, concealing the great variations between the provinces, often ranging from 24.5% percent in the Western Cape province to 42.4 percent in the Eastern Cape. Five provinces in the country: Eastern Cape, Free

State, Mpumalanga, Gauteng and North West, all have higher unemployment rates than the national average of 32.9 percent, further implying that almost one in every three people in these provinces are unemployed.

The saying of the African Philanthropist, Mr Tony Elumelu (Chairman of Heirs Holdings and the Tony Elumelu Foundation) aptly sums up this gory situation: "*Youth unemployment is a tragic waste of talent and a betrayal of a generation.*" This statement is very apposite for South Africa and indeed, to Africa at-large. It is further reinforced by Jane Adams (the renowned social worker and public administrator) when she stated categorically that "... *of all aspects of social misery nothing is so heartbreaking as unemployment.*" So, addressing youth joblessness is not only sound economics but also a development imperative.

Ultimately, and as it is throughout the history of UNDP's Human Development Reports, the overarching intention of this report is to trigger some robust national discussions around youth unemployment and, in the spirit of collaboration with the government and all other stakeholders, find sustainable solutions to this scourge. Without some decisive policy decisions and strategic actions, the report clearly warns that continued youth unemployment threatens the social and political stability of South Africa.

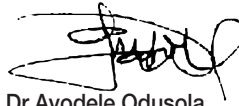
To defuse the time bomb of **youth joblessness**, the report calls on South Africa to **join its heads, hearts and hands** to tackle the crisis. **Prolonged joblessness** can lead to another lost generation through the **erosion of skills and human capital**.

Prolonged joblessness can lead to a lost generation through the erosion of skills and human capital. In this regard, weaning youth from dependence on social grants to productive employment and entrepreneurship is critical to addressing this crisis. Given that knowledge, skills and expertise are the currencies of the 21st Century; continuous investment in these elements is critical for meaningful results.

The report proposes a five-pronged action agenda to address this development challenge. The first is by developing a strategic approach to a youth transition pathway to sustainable livelihoods and enterprise development. This includes tackling slow economic growth, promoting stable macroeconomic environments, and addressing the ongoing energy crisis. Second is by creating strategies to seize job opportunities and harness demographic dividends, (including removing barriers to employment-led growth; developing entrepreneurship in SMEs, and; making the informal economy more dynamic) is critical. Third, South Africa must capture and leverage opportunities in the new world of work for

job creation and expansion, especially by promoting skills, infrastructure, policies, and institutions for the Fourth Industrial Revolution (4IR) to thrive. The fourth action focuses on revitalizing the national youth service scheme for graduates of tertiary institutions, as has been done in Ghana and Nigeria since the 1970s. Finally, creating alliances of different actors through the effective sharing of information and coordination of isolated interventions by different stakeholders could promote synergy for better and enhanced results. It also requires forging a strong alliance on long-term financial sustainability across tiers of government, the private sector and other actors.

It is therefore with much pleasure that I present this report with the sincere hope that it will advance South Africa's progress and development.



Dr Ayodele Odusola
UNDP Resident Representative, South Africa

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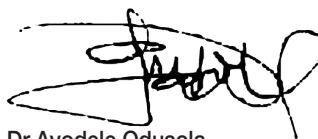
I am especially grateful to the HSRC team comprised of Dr Benjamin Roberts (Research Director, HSRC), Mr Krish Chetty (Chief Researcher, HSRC), Dr Justin Visagie (Senior Research Specialist, HSRC), Professor Sharlene Swartz (Divisional Executive, HSRC), Professor Peter Jacobs (Strategic Lead, HSRC), Dr Yul Davids (Research Director, HSRC), Ms. Jare Struwig (Chief Research Manager, HSRC), Dr Steven Gordon (Senior Research Specialist, HSRC), Ms. Asanda Ntunta (Former Researcher, HSRC) and Mr Olebogeng Molewe (Junior Researcher, HSRC) that was led by Dr Angeliqwe Wildschut,

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Last but not least, I am grateful to the staff of the UNDP (South Africa Country Office) Strategic Policy and Research Unit (SPRU) led by Ms Fatou Leigh and Mr Rogers Dhlwayo, UNDP South Africa Country Office Economics Advisors. Rogers Dhlwayo served as Task Manager for the preparation of the report and worked closely with the NSC and staff of the HSRC to calculate the Human Development Indices and finalizing the report. The various UNDP Programme and operations teams provided valuable support to the process and we would like to extend our gratitude to them as well.

Finally, I express my profound gratitude to Dr Selim Jahan, an independent consultant for synthesizing the background papers and turning them into a coherent report. The final professional review and editing of the report fell in the hands of an independent consultant, Barbara Hall, and Prof George Odera Outa of the Technical University of Kenya.

To one and all, a big thank you for the efforts made to ensure the production of the 2022 HDR for South Africa.



Dr Ayodele Odusola
UNDP Resident Representative, South Africa

Acronyms and abbreviations

4IR	Fourth Industrial Revolution
ALMP	Active labour market policy
ASGISA	Accelerated and Shared Growth Initiative of South Africa
BBBEE	Broad-Based black Economic Empowerment
EECA	Eastern Europe and Central Asia
ERRP	Economic Reconstruction and Recovery Plan
FDI	Foreign Direct Investment
GEAR	Growth, Employment and Redistribution
GFCF	Gross Fixed Capital Formation
IWOSS	Industries without smokestacks
LAC	Latin America and the Caribbean
MENA	Middle East and North Africa
NARYSEC	National Rural Youth Service Corps
NDP	National Development Plan
NEF	National Empowerment Fund
NEO	New Employment Opportunities
NGP	New Growth Path
NHDR	National Human Development Report
NYDA	National Youth Development Agency
NYSP	National Youth Service Programme
OECD	Organisation for Economic Co-operation and Development
PPPs	Public-private partnerships
RDP	Reconstruction and Development Programme
RISDP	Regional Indicative Strategic Development Plan
SADC	Southern African Development Community
SETA	Sector education and training authorities
SME	Small and medium-sized Enterprise
STEM	Science, Technology, Engineering, and Mathematics
TVET	Technical and vocational education and training
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Fund
UNIDO	United Nations Industrial Development Organization
WEF	Women Entrepreneurial Fund

Executive Summary and Key Messages

Overall structure of the report

This 2022 South African *National Human Development Report* (NHDR) is organized around five substantive chapters all focussed around the theme, 'Harnessing the Employability of South Africa's Youth'. A **Statistical Annex** at the end of the report serves as an important yardstick, not only of the availability of national data to feed into internationally comparable assessments of development, but also to highlight areas for further collaboration towards developing contextually relevant indicators that are traditionally, part and parcel of UNDP's Human Development reporting.

Purpose of the report

This NHDR serves a two-fold purpose. First, it brings to the fore, the gory and rather difficult challenge pertaining to youth unemployment in South Africa. Second, the report is expected to trigger a robust national debate between and across all stakeholders, with a view to pulling together and contributing to the resolution of this enormous developmental challenge.

Report in summary by chapters

The introductory **Chapter one** lays bare, the legacy of colonialism and apartheid and how this has impacted the continued reality of widespread youth unemployment. It further highlights the shocking paradoxes of South Africa's developmental trajectory. One of these is that, although over more than a century ago the country built an effective system of technocracy that was even ahead of China and the Republic of Korea and at par with Japan and Europe, so many South Africans still suffer deprivation at various levels. Moreover, the Republic of Korea, which has almost the same population as South Africa and experienced oppression during the Japanese occupation similar to that of black South Africa under apartheid, has - with fewer natural resources, - achieved a higher level of Human Development in the 60 years of freedom from Japan.

Despite the wealth of resources and opportunity to advance its population, South Africa, in contrast, has only its white population, (currently only making

up 7 percent of the population), achieved higher level of human development. The big question then becomes, why is it that with such massive assets, South Africa has not managed to implement the necessary measures for an inclusive society?

The long legacy of colonial and apartheid structures continues to cast its dark shadow on South Africa's progress and development.

Impact of COVID-19

The South African economy was already vulnerable at the outbreak of the COVID-19 pandemic in March 2020. The economy had already experienced two consecutive quarters of a recession. The largest job losses recorded due to COVID-19 were in trade (309,000); community and social services (210,000), and; construction (65,000). Fifteen percent of the 14.3 million people who were employed during the third quarter of 2021 were not expected to work during national lock-down, i.e. 2 in every 10. During the same period, about 7 percent of those employed did not receive pay. Between Q1 and Q2 of 2020, the employment of workers in the bottom 20 percent of the wage distribution dropped by 35 percent, but by less than 10 percent for workers in the top 20 percent of the wage distribution.

In **Chapter two**, a detailed analysis of the youth unemployment scenario is presented. The face of unemployment in South Africa is black, young and female. Compared to other race groups, in the third quarter of 2021, South African blacks, with an unemployment rate of 39 percent, had a rate of 9 percentage points higher than that of the coloured South Africans and 30 percentage points higher than that of South African whites. In the same period, the unemployment rate of women was 37 percent; that is, 4 percentage points higher than that of men.

In 2019, youth unemployment was 57 percent, but in the third quarter of 2021, the highest rate was recorded, at 67 percent. The unemployment rate in the 25-34 age group rose to 44 percent during the same time period. Youth unemployment in South Africa is correlated with youth educational levels.

Thus, the unemployment rate among youth without a matric certificate¹ is 40 percent, and among youth with a matric certificate, is 37 percent. In contrast, only 13 percent of young graduates are unemployed; a rate that is 22 percent lower than the national average.

Since the end of apartheid in 1994, South Africa's economy has been mired in a long run, low-growth trap. From 2010, real GDP per capita growth has been below 2 percent, with the rate of growth turning negative in 2014. The national economy experienced three recessions since 1990 and that approximately 55.5 percent of the population are living in poverty at the national upper poverty line. If the lower-bound poverty level is considered, 40 percent of South Africans live in poverty which is one of the highest in the middle-income countries of the world. Among the drivers of poverty, unemployment accounts for 52 percent and number of years of schooling, 23 percent. In 2020, the Gini coefficient, measuring income inequality, was 0.68, one of the worst globally. Inequality in assets is even greater than inequality in income or consumption. The top 10 percent of South Africans own 86 percent of the country's aggregate wealth, and the top 0.1 percent close to one third. The inability of so many people to find work exacerbates South Africa's levels of inequality.

Even a quarter of a century after obtaining its freedom, South Africa is still stifled with challenges – slow and sluggish economic growth, deep poverty and acute inequalities, and high unemployment.

In **Chapter three**, the report presents detailed experiences with youth employment programmes from other African regions as well as from global experiences. The strong message of the chapter is that there are critical lessons that South Africa could learn from the other African regions, notably Nigeria and Ghana, but also further afield from Latin America and the Caribbean, as well from Asia and the European Union (EU). Quality education is seen to be key to skills formation and hence employment.

Interventions to improve students' information about the returns of education have also paid off in reducing dropout from lower secondary school. Some interventions to reduce dropout rates have generally been more effective at the lower secondary level than at the upper secondary level. The Latin America and the Caribbean (LAC) experiences show that comprehensive training interventions for youth tends to have positive impacts on their employability, earnings and especially, job quality.

Different regions of the world have tackled their youth unemployment challenge differently, and South Africa can learn from these diverse experiences.

In the **Chapter four**, the report puts forward a pragmatic focus on the 'changing world of work' particularly with the advent of the Fourth Industrial Revolution (4IR). In her endeavour to tackle unemployment in general and youth unemployment in particular, South Africa has to find a balance between work in traditional sectors and the emerging opportunities in the digital economy. The traditional sectors for youth employment in South Africa has always been agriculture and construction, as well as in the *industries without smokestacks* (IWOSS) sectors. Reductions in transportation costs and advancement in information and communications technology (ICT) have led to the creation of services and agri-business that share characteristics with manufacturing. Like manufacturing, these services are tradable and have high value-added per worker. Besides, the sectors have the capacity for learning, for stimulating productivity growth and some may even achieve scale and agglomeration economies.

The key message of the **Chapter four** is the imperative of a strategic focus that will see to the equipping of South Africa's youth with new skill sets and an education that can enable them tap into the new digital opportunities but also extending into such areas as the creative economy, the sharing economy and social entrepreneurship among others.

¹ In South Africa, matriculation (or matric) is the final year of high school and the qualification received on graduating from high school, and the minimum university entrance requirements. The first formal examination was conducted in South Africa under the University of the Cape of Good Hope in 1858.

The changing world of work with the Fourth Industrial Revolution may pose some job risks for South African youth, but would also open up enormous, new opportunities.

The final **Chapter five** is focussed both on the strategies for enhancing the employability of South Africa's youth as well as the policy options that should be pursued diligently in order to avert what is clearly emerging as a dangerous time bomb. In a nutshell, the report proposes **a five-prong action plan** (see diagrammatic illustration below), coupled with some twelve specific policy options that can create and enhance youth employment opportunities.

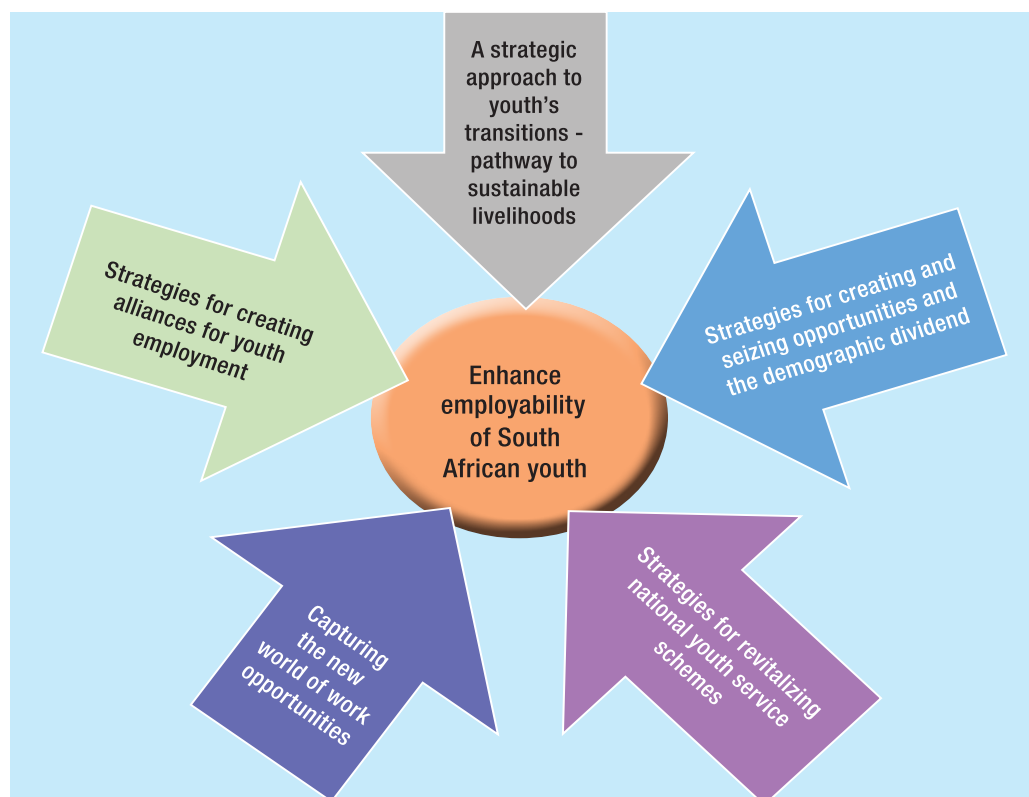
In order to enhance the employability of South Africa's youth, strategies for creating opportunities are required. Some of the building blocks of such strategies are to be found in investing in employment generation; reviving agriculture;

making the informal economy more dynamic; removing barriers to employment creation and building high-quality infrastructure. The other building blocks are in developing entrepreneurship; supporting young workers and entrepreneurs; forging strong backward and forward linkages between Small and Medium-sized Enterprises (SMEs) and the rest of the economy, as well as, developing youth skills and establishing public private partnerships (PPPs).

With South Africa's strong research and development base, strong financial institutions, well-developed infrastructure and innovative experiments, she can manage the associated disruptions from the new revolution.

Joblessness of South African youth is not an impossible hurdle; there are policy choices for enhancing their employability

A five-pronged strategy for harnessing the employability of South African youth



Five key messages in the report

Key message 1

Although South Africa has a long legacy of colonization and apartheid, and now faces the triple development challenges of slow growth, deep poverty, inequalities, and high levels of joblessness, the country has the vision, commitment and capability of overcoming its youth unemployment challenge.

Key message 2

In order to tackle its high and complex youth unemployment challenge, and to take advantage of the opportunities of the future world of work, South Africa has to extensively invest in 21st century skills of its younger generation.

Key message 3

The new world of work propelled by the Fourth Industrial Revolution presents new job opportunities but also poses risks. South Africa must be ready to seize the opportunities of the new world of work while minimizing its associated risks.

Key message 4

All around the world, different countries and regions have been trying to address the challenge of high unemployment through various innovative interventions. South Africa can learn from youth employability experiences from other regions of the world.

Key message 5

Policy options for overcoming youth joblessness in South Africa are available. Drawing on them and learning from the experiences of other countries, the country should pursue an action agenda for expanding youth employment

South Africa: the Remarkable Journey of a Nation

1.1 Introduction

South Africa has a fascinating history, people, culture, diversity and topography. It is one of the last countries on the continent of Africa to secure its freedom from settler colonialism and apartheid. During the apartheid period, it was mostly disconnected from the rest of the world. In 1994, a democratic government was elected, apartheid abolished, and a new Constitution embracing the Bill of Rights enacted. With a total land area of 1.2 million km² and an estimated population of nearly 59 million (2019 mid-year estimates), South Africa is a constitutional democracy consisting of nine provinces. In 2019, it ranked at number 114 among the 189 countries in the Human Development Index (HDI), placing it in the high human development category. Over time, South Africa's historical evolution and the journey of its people were so remarkable that, in some ways, they made unparalleled progress. The nation experienced a journey of colonialism and apartheid, before achieving independence. Through a historical lens, this chapter follows this remarkable journey, covering the developmental dynamics, the human development record, as well as the emerging and future challenges.

1.2 A historically entrenched white hegemony

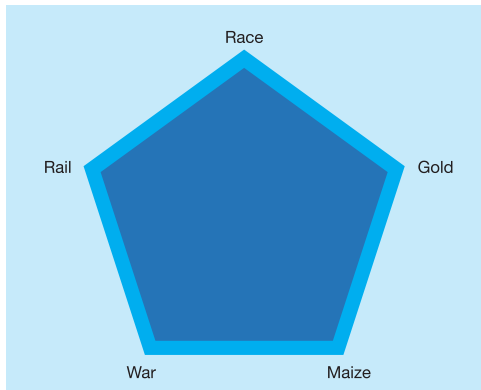
South Africa is a unique country for having experienced long spells of colonialism and apartheid. Its long history has been characterised by centuries of colonial rule and white hegemony, cemented by apartheid. A historically entrenched white hegemony was fortified by codifying apartheid into law to systematically advance discriminatory practices against non-white South Africans, i.e. Indian, coloured and black South Africans.

With frontier wars and the genesis of racialized colonial accumulation of power and capital, the late 1700s was a turning period of subjugation and colonialism in Southern Africa, more generally, and in South Africa, specifically. The year 1860 is sometimes identified as a milestone of the intensification of racialized capitalist developments, and the 127 years that followed, as a crucial period of an intensified spatial and temporal interplay of race, rail, gold, maize and war in defining South Africa's development trajectory. These five elements may be termed the 'pentagon of development' for South Africa (Figure 1.1), which together explain the dynamics of its development and its paradoxes.

1.2.1 The pentagon of race, rail, gold, maize and war

The first vertex of the pentagon manifests in the sustained, brutal, uneven development of apartheid as dramatised by its stark and stubborn racial disparities. The whites perfected the political economy of privilege over the three centuries of colonial domination and rule, and the subsequent implementation of an apartheid economic governance for 46 years. As a result, they experienced prosperity, privileges and a better life. The Indian South Africans were at the middle of the socio-economic ladder, and the coloured and black South Africans were at the bottom, suffering the worst economic conditions. The Indian South Africans, due to enhanced educational attainment and by benefiting from the Government's preferential budgets over coloured and black South Africans, made significant strides in improving their socio-economic status within 60 years.

Figure 1.1: The pentagon of South African development



Source: Lehohla (2020).

The second and third vertices of the pentagon are the symbiotic relationship between minerals and farming capital. The arrival and settlement of Dutch settlers in the Cape contributed significantly to the current geographic form, regional content, and context of South African geo-politics. Their arrival intensified the state of flux and frontier wars in the region, as settlers sought farmland for grazing their cattle and raising crops. But it was not until the discovery of diamonds in Kimberly in 1867 and then gold on the Reef 17 years later in 1884 that the demand for labour changed and influenced the development path of South Africa. The mining industry raised the demand for agricultural products. The African peasantry were adept and produced for this new market; however, the rail, maize and gold complex neither practised fair trade nor followed the fundamental principle of labour as an expression of free will. On the contrary, both the Dutch and the British practised enslavement in order to fuel these three states of the economy. Thus, a political and financial system was created that succeeded in generating conditions of enslavement of the natives by the white settlers.

The minerals complex led naturally to the need for intensified construction of rail and road infrastructure, which put further pressure on the demand for labour. British settler colonialism dominated the mineral complex, and the Dutch settlers dominated agricultural production. Despite repeated conflict between the British and Dutch settlers, culminating in the two Anglo-Boer Wars, in time, they agreed on how to obtain the labour needed on agricultural farms and mines.

The economic base of peasant production of livestock and crops was greatly compromised and destroyed. Large tracks of territory were stolen by the British and the Dutch colonialists. Land theft continued to disenfranchise Africans in South Africa. Once this economic base was destroyed, Africans had to forcibly offer their labour in both the mining and agricultural sectors. In the almost four decades, from 1867 to 1910, the Dutch and the British concluded the most crucial economic pact that would subject Africans to perpetual slavery and poverty in the long term.

Rail, the fourth vertex, was pivotal to South Africa's advancement; it was the main infrastructure for freight and passengers for more than 120 years. This led to the crowning of South Africa as a railway country. With the discovery of diamonds in Kimberly in 1867, the future of rail could not be brighter. And even more so when gold was discovered on the Reef. The rail infrastructure also reduced hostilities between the English and the Dutch. The period of depression between the two wars witnessed migration into urban spaces on a grand scale, which fuelled South Africa's industrialisation agenda. In addition, the rail infrastructure continued to expand in the post-WWII period in order to develop connectivity for goods and passengers, and grew at a rapid pace as technologies were developed. More importantly, the integration of rail logistics and coal production marked the beginning of the management of global value chains.

The fifth and last vertex was war. When WWII erupted, South Africa would play a crucial role. Although its territory was not involved in the war, it built logistic capability and was on the cusp of industrialisation. Since South Africa had a well-built system for manufacturing railway infrastructure, it was well poised to manufacture and repair war materials. There was a strong demand to supply soldiers for the battlefield and for manpower; the destruction of the coal fields in Europe provided South Africa with the opportunity to fill this void. By the end of WWII, due to its role in the war effort, South Africa was catapulted into an industrial hub and became a leader in exports, especially of minerals.

1.2.2 Lessons from the interplay of race, rail, maize, gold and war

What, then, can we learn from the interplay of the pentagon of race, rail, maize, gold and war in South

Africa's development? The lesson learned stresses that South Africa's development trajectory was based on the skilful deployment of racial politics and economics across its development levers of race, rail, maize, gold and war. So pervasive was racial prejudice that South Africa built a legal infrastructure to authorise it, i.e. apartheid. Its development into a modern economy was accompanied by and predicated on pervasive racial prejudice as an economic lever. Race is a socio-economic feature of colonial politics, and apartheid is a raced-based economic strategy that permeated the nascent developments in the pentagon; they highlighted the race and gender-based divisions and differences in the political economy of the country.

1.3 Transition into a modern economy and to independence

More than 129 years since 1860, colonial and subsequently apartheid South Africa, through this development pentagon, invested in a deliberate process of building state capacity. As a result, the country created a sophisticated and unparalleled physical, economic and financial infrastructure. WWII gave a boost to South Africa in three ways: (i) it had to build infrastructure to support the allies during the war; (ii) when the war ended, it had to continue supplying goods and services that would meet requirement for rebuilding Europe; and (iii) it accessed technical skills through those fleeing post-war strife in Europe. Also, South Africa was not greatly affected by the war, except in south-west Africa where they had to confront the Germans. From the WWII experience in 1945, it saw the great potential of building mega capability in producing ammunition. By the 1940s, South Africa would supply military ware to the WWII. The beginning of industrial expansion had begun, setting in motion an unprecedented industrialisation in the 1946–1975 period.

By 1969, South Africa was manufacturing not only sophisticated weaponry, but had also initiated the programme for manufacturing nuclear weapons. Nuclear capability was achieved by 1975. Faced with stiff international sanctions, it developed an inward-looking strategy of retrofitting old technology for the future. It achieved many firsts in this regard in

the field of ammunition. Importantly, the sanctions caused South Africa to become more resolute. As a result, it had built a substantial infrastructure so that it would be a major industry player globally. It became a highly industrialised country, at par with the developed world. According to United Nations Industrial Development Organisation (UNIDO), as of 2015, South Africa ranked 47th on the Competitive Industrial Performance Index, which is in the upper-middle quintile and ahead of New Zealand. In terms of availability of latest technology, South Africa was ahead of Brazil, China, India and the Russian Federation.

The above-outlined achievements were possible for four reasons. First, through its educational and research institutions, South Africa could produce top scientists, researchers, engineers and other professionals. It had exceptionally competent scientists and engineers who were adept at substituting local manufacturing for imports. South Africa built scientific capabilities in fuel technology and petrochemicals. It created science-based institutions that would make it competitive and expand its potential even in the face of negative events. Second, South Africa has built an extensive infrastructure (ports, roads, telecoms, etc.) and a large and sophisticated business sector. The country is the financial and economic hub of Africa with a highly sophisticated system of financial institutions and transaction mechanisms. And its business capabilities are strong. The country also has a sophisticated fiscal redistribution system. Third, South Africa has strong and robust institutions that include, among others, the Constitution, the Judiciary, a legal framework, the media, as well as civil society organisations (CSOs). Finally, the country has a strong tradition of democratic accountability, mobilisation and dialogue, all of which differentiates South Africa from other African nations.

1.4 The reconstruction and development programme

In April 1994, a historic moment occurred in South Africa where, for the first time, black South Africans secured franchise and could vote for a government of their choice. President Mandela was inaugurated as the first President, and his first task

was the implementation of the Reconstruction and Development Programme (RDP). It was through the RDP that South Africa defined its Marshall Plan to address the legacy of the past. The RDP was defined in terms of four pillars:

- an integrated, coherent socio-economic policy framework seeking to eradicate poverty of the past;
- a framework within which the African National Congress (ANC) of South Africa would develop a detailed political position and a legislative programme of the Government;
- a broadly-consulted programme;
- a blueprint through which consultation should be undertaken and should further seek business participation.

Since the RDP involved the successful engagement of stakeholders in its formulation and design, the stakeholders continue being active in

and responsible for its effective implementation. The RDP addresses five interlinked key areas: (i) meeting basic needs; (ii) developing national human resources; (iii) building the economy; (iv) democratising the state and society; and (v) implementing the RDP (see Box 1.1).

Subsequently, in 1996, the *Growth, Employment and Redistribution* (GEAR) strategy was introduced as an important planning and implementation arm of the RDP. The GEAR sought a competitive, fast-growing economy that creates sufficient jobs for all work-seekers; a redistribution of income and opportunities in favour of the poor; a society in which sound health, education and other services are available to all; and an environment in which homes are secure and places of work are productive. The GEAR strategy therefore aimed to rebuild and restructure the economy in keeping with the goals set in the RDP. With the build-up towards the 2010 World Cup, the Government decided to introduce the *Accelerated and Shared Growth*

Box 1.1: Five key areas of the Reconstruction and Development Programme

Meeting Basic Needs

Arising from the inequality of the past, the first priority was to address the most basic of South Africa's needs, identified as jobs, land, housing, water, electricity, telecommunications, transport, a clean and healthy environment, nutrition, health care and social welfare.

Developing National Human Resources

The Reconstruction and Development Programme (RDP) addresses education from the primary to the tertiary level, and from child care to advanced scientific and technological training. It focuses on young children, students and adults. It deals with training in formal institutions and at the workplace.

Building the Economy

In South Africa, mining, manufacturing, agriculture, commerce, financial services and infrastructure were and still are well developed. Yet, it is clear that they have not benefited the entire population. A process of economic reconstruction was proposed in order to benefit the entire population. A core element of this proposal was recognising that the South African economy could not be built in isolation from its Southern African neighbours.

Democratising the State and Society

Democratisation was the cogwheel of the RDP. Democratising the State entailed democratising access to resources and to unleashing South Africa's potential to implement a coherent programme of reconstruction and development. By linking democracy, development and a people-centred approach, South Africa through the RDP would pave the way for a new democratic order.

Implementing the Reconstruction and Development Programme

Following an examination of the concept and challenge of implementing the RDP, South Africa carried out an in-depth analysis of the processes and forms of participation by non-government organisations outside government that were very different to the ones of the old apartheid order.

Source: Based on Lehola (2020, pp. 33–35).

Initiative for South Africa (ASGISA), which was not part of the GEAR strategy. As a result of opening up to the global markets, clothing industries closed and jobs were lost due to competition, mainly from China. But there were other areas where South Africa gained market penetration, such as in the wine and motor industries.

The extent to which these gains have more than compensated for the jobs lost and de-industrialisation cannot readily be assessed, but unemployment was on a downward trend, from 26 percent in 2005 to 24 percent in 2010. With the implementation of ASGISA largely capitalising on the success of the 2010 World Cup, the Government started debating whether or not to shift towards a developmental orientation. It laid the basis for the adoption of the 2012 National Development Plan (NDP), which explicitly affirms that South Africa aspires to be a developmental state by 2030.

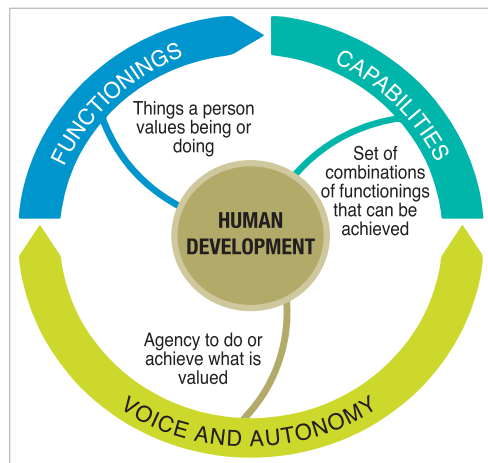
1.5 Introducing the New Growth Path

To mitigate the impact of the global financial crisis, the country introduced the New Growth Path (NGP) in 2010, a successor to ASGISA. The central theme of the NGP was the continual restructuring of the South African economy to improve its performance in terms of labour absorption as well as the composition and rate of growth. Critical elements of the NGP were, first, the identification of ‘job-drivers’: areas that have the potential for creating employment on a large scale, and second, efforts to align national economic policy with industrial policy. When an assessment of the RDP was carried out 12 years after the introduction of that plan, some positive achievements were identified. For example, the percentage of people aged 20 years and over, but without schooling, nearly halved from 19 percent in 1996 to 10 percent in 2007. In 1996, 70 percent of six-year-old children were in school; by 2001, it has increased to 91 percent. In 1996, access of the population to potable water improved, from 64 percent to 81 percent in 2001, and access to electricity from 58 percent in 1996 to 80 percent in 2007. South Africa grew at an annual average growth rate of 3 percent between 1996 and 2008. Even though some concrete quantitative assessments of the RDP have been made, the GEAR in South Africa has not yet been assessed.

1.6 Assessing the progress of Human Development in South Africa

Human development is simply defined as a process of enlarging choices and creating opportunities for everyone. It involves acquiring more capabilities and enjoying more opportunities to use them. With more capabilities and opportunities, people have more choices, and expanding choices is at the core of the human development framework. Moreover, Human Development is anchored in human rights and it is also linked to human security. Its ultimate objective is to enlarge human freedoms. Such freedoms have two fundamental aspects, the *well-being freedom*, represented by capabilities, and the *agency freedom*, represented by voice and autonomy (Figure 1.2). Both types of freedom are absolutely necessary for human development for everyone. In the ultimate analysis, human development is development of the people, for the people, and by the people.

Figure 1.2: Human Development: the analytical framework



Source: Jahan (2019a).

In the 1990 Human Development Report, the human development framework also introduced a composite index named, the Human Development Index (HDI), for assessing achievements in basic dimensions of human development (Box 1.2). In 2019, the HDI for South Africa was 0.709, placing the country in the high human development category (Table 1.1). In the global HDR 2020, South Africa ranked 114th among the 189 countries in the HDI. In 30 years, from 1990 to 2019, the HDI of South Africa increased by 13 percent.

Box 1.2: Composite human development indices

The Human Development Index (HDI) consists of three basic dimensions of human development: leading to a long and healthy life, measured by life expectancy at birth; acquiring knowledge, measured by mean years of schooling and expected years of schooling; and achieving a decent standard of living, measured by gross national income per capita. The theoretical maximum value of the HDI is 1.0.

To measure human development more comprehensively, four other composite indices were also constructed: the Inequality-adjusted HDI, which discounts the HDI according to the extent of inequality; the Gender Development Index (GDI), which compares female and male HDI values; the Gender Inequality Index, which highlights women's empowerment; and the Multidimensional Poverty Index (MPI), which measures non-income dimensions of poverty.

Source: Jahan (2019a).

In 2019, with a life expectancy of 64 years of age, which is 8 years lower than that of the developing world, it is clear that South Africa is still affected by HIV/AIDS. Its GNI per capita ranking was 100 and its HDI ranking was 114, which implies that the country has not been successful in translating its high income into human development outcomes. The bottom panel of Table 1.1 shows its HDI trend between 1990 and 2018, which is based on consistent and comparable data. These data indicate that the HDI value has consistently improved since 1990, and that, between 1990 and 2019, its HDI value increased by 13 percent.

In 2019, with a life expectancy of **64 years of age**, which is 8 years lower than that of the developing world, **it is clear that South Africa is still affected by HIV/AIDS.**

Table 1.2 presents the HDI ranking and the HDI values of South Africa and its two neighbours – Botswana and Namibia. South Africa ranks between Botswana and Namibia. Like South Africa, in terms of life expectancy and translating income into human development outcomes, Botswana and Namibia were plagued by the HIV/AIDS pandemic in the 1990s and are still struggling to compensate for the resulting reduced life expectancy. As evident from the difference between the gross national income (GNI) per capita and the HDI rank, Botswana and Namibia, just like South Africa, were not able to transform their high per capita income (particularly Botswana) into life expectancy. In terms of other BRICS countries (i.e. Brazil, Russian Federation, India and China), all but India are doing better than South Africa in the area of human development, as measured by the HDI.

Table 1.1: The South African Human Development Index and its components, 2019

Human Development Index (HDI) Rank	HDI value	Life expectancy at birth (years)	Expected years of schooling (years)	Mean years of schooling (years)	Gross national income (GNI) per capita (2017 PPP\$)	GNI per capita rank minus HDI rank
114	0.709	64.1	13.8	10.2	12,129	-14

Trends of HDI in South Africa, 1994–2019						
1990	2000	2010	2014	2015	2017	2019
0.627	0.631	0.664	0.693	0.701	0.705	0.707

Source: UNDP (2020).

Table 1.2: The Human Development Index for South Africa, Botswana and Namibia, 2019

	HDI rank	HDI value	Life expectancy at birth (years)	Expected years of schooling (years)	Mean years of schooling (years)	Gross national income (GNI) per capita (2017 PPP\$)	GNI per capita rank minus HDI rank
Botswana	100	0.735	69.6	12.8	9.6	16,437	-27
South Africa	114	0.709	64.1	13.8	10.2	12,129	-14
Namibia	130	0.646	63.7	12.6	7.0	9,375	-17

Source: UNDP (2020).

According to the global HDR 2020, South Africa ranks 0.986 in the Gender Development Index (GDI); it is in the top category of gender-related human development. The female HDI ranking is 0.702, against the male HDI ranking of 0.712. Women's life expectancy at birth is, on average, 67.7, compared to 61 years for men. As regards to education, South African women are also ahead of men, with 14.2 years of expected schooling, compared to 13.4 years for men. The mean years of schooling for both women and men are 10 years. However, women lag far behind men in terms of the estimated GNI per capita, at \$9,248 against \$15,095, both measured in 2017 purchasing power parity (PPP\$). Women in South Africa struggle with a wage pay gap. In addition, the maternal mortality ratio per 100,000 live births is 119, and the female labour force participation rate is only 50 percent, compared to 67 percent for men. Furthermore, women are more often victims of sexual violence, murder and abuse. However, on a positive note, 45 percent of South African parliamentarians are women.

Other Human Development indicators in South Africa

As shown in Table 1.3, in terms of various human development indicators, South Africa has made good progress. The table presents inter-temporal data from various censuses and General Household Surveys of South Africa. Even though not strictly comparable, the trend of progress is clear.

The female labour force participation rate is only 50 percent, compared to 67 percent for men.

Table 1.3: Progress in selected human development indicators of South Africa, 1996–2019

Basic services	1996	2001	2011	2019
	Census			GHS
Electricity	58.2	69.7	84.7	85.0
Education				
• National School Certificate (Matric) /grade 12	15.6	20.4	27.7	30.8
• Post-school (tertiary)	5.8	8.4	11.7	15.4
• Attending an educational institution (5–24) years	70.1	71.5	73.5	85.9
Improved water source	60.8	62.3	73.4	88.2
Improved sanitation	50.5	53.6	57.0	82.1
Formal dwelling	65.1	68.7	77.6	81.9
Refuse removal	52.2	55.4	57.0	58.8

Source: Mahembe (2021).

In 2011, although the international poverty line measured in PPP\$ was \$1.90, the proportion of extreme poor in South Africa was estimated at 19 percent, which was nearly half of the 34 percent in 1995. Measured by the Multidimensional Poverty Index (MPI), around 6 percent of South Africans, or 36 million people, are poor on multiple dimensions. In 2019, income inequality, as measured by the Gini coefficient, was one of the worst globally, at 0.63. If measured by the Inequality-Adjusted HDI (IHDI), South Africa loses one third of its HDI value. In 2019, the national unemployment rate was 29 percent. The child mortality rate was around 34 per 1,000 live births, and the maternal mortality ratio was 119 per 100,000 live births. The HIV prevalence rate was 18

percent, and the homicide rate was 34 per 100,000 lives. The female labour force participation rate was 47 percent against 62 percent for males. The country's forest coverage was only 7 percent, and fossil fuel consumption accounted for 87 percent of total energy consumption.

1.7 Paradoxical issues concerning South Africa's development trajectory

Over the years, South Africa clearly had an impressive developmental trajectory. The colonial and subsequently apartheid South Africa invested in a deliberate process of building the capacity of the state, and as a result, the country achieved a sophisticated physical, economic and financial infrastructure. It produced scientists, researchers, engineers and other professionals capable of revolutionising the country's technology and economic infrastructure. South Africa has built an extensive physical infrastructure such as ports, roads, telecommunications; a large and developed business sector, an impressive financial and economic hub of Africa; strong business capabilities; and a good fiscal redistribution system. The country is highly industrial and technological. Moreover, the institutions, such as the Constitution, the Judiciary, the legal framework, the media, as well as civil society are strong and robust, and hence the country boasts of strong traditions of democratic accountability as well as of dialogue.

Yet, in spite of such an impressive background, there are paradoxical issues and lingering questions. For example, given that South Africa built over more than a century such an effective system of technocracy, ahead of China and the Republic of Korea, and at par with Japan and Europe, why are South African people still deprived on several fronts? The Republic of Korea has almost the same population as South Africa. It experienced oppression from Japan in the

years of its occupation, a similar oppression to what black South Africa suffered under apartheid. Yet, in the 60 years of freedom from Japan, the Republic of Korea has managed to develop the country with only a few natural resources. In contrast, despite its wealth of resources and opportunity to develop its population, only South Africa's white population (7 percent) has advanced. And why does South Africa rank 114 in the world in terms of quality of education, even though it ranks 45 in availability of latest technologies? With such massive assets, why has South Africa not managed to implement an inclusive society?

The simple answer to these questions is that the century-long development of South Africa was a purely racialized development. Over time, discriminatory practices were pursued, perfected and legitimised through colonialism and later-day apartheid. The development of productive forces, human capital and human development benefits have been skewed over centuries – first because of colonial rule, and then cemented through apartheid. This created deep gaps in the well-being and development of coloured and black South Africans. After 160 years of a massive industrial revolution from 1860, South Africa's black demographic transition was not accompanied by higher incomes or a better standard of living. Rather, South African blacks were systematically marginalised and excluded from reaping the benefits of the economy and education. It was the race-based policies that constrained South Africa from advancement. According to the logic of apartheid, any African employee was considered a peasant, unwelcome in urban areas except at the behest of his or her master. Wages for Africans were based on the assumption that he/she should be produced and reproduced in part in the rural hinterland. It was thus not until 1973 that the United Nations declared through a Convention, that apartheid is a crime against humanity.

.....

And why does South Africa rank 114 in the world in terms of quality of education, even though it ranks 45 in availability of latest technologies?

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Two pieces of legislation, the Natives Land Act, No. 27 of 1913 and The Natives (Urban Areas) Act of 1923, clearly highlight how the population was racialized. This legislation is the subject of the contemporary, heated and polarising national discussions on the expropriation of land without compensation. The other reclassification of the natives was in terms of being Bantu. Its most profound impact was on South African blacks as defined and implemented through the Bantu Education Act, 1953 (Act No. 47 of 1953). This Act later became the Black Education Act of 1953. These profound changes in the definition and redefinition of a people characterised South Africa's colonialism as a special type, i.e. apartheid.

Over time, the pool of South African black, coloured and Indian labour was readily available as industrialisation took root in South Africa. However, these workers were deliberately not exposed to the skills of their equally unskilled white counterparts and were systematically deprived of the skills required by the economy. For this reason, in addition to drawing 'white' skills (i.e. technical and managerial skills) from abroad, there was no equity among the population across races. Empirical evidence across the world – whether over a slower 150-year period, as in Europe, or a faster 40-year period, as in China – shows that a fundamental driver to harness the demographic dividend is education accompanied by industrialisation and its associative urbanisation and improved service delivery. South Africa is a perfect example of where the demographic dividend benefits a mere 9 percent of the population, and excludes 89 percent. Upon tabling the Bantu Education Act, Act 47 of 1953 in Parliament, Dr Hendrik Verwoerd, Prime Minister of apartheid South Africa did not mince his words: "Education must train people in accordance with their opportunities in life, according to the sphere in which they live. What is the use of teaching the Bantu child mathematics when it cannot use it in practice?"

The elaborate measures of discriminatory exploitation of some South African race groups that were implemented to allow for white political and economic hegemony did not go unchallenged, in particular, among student movements that emerged in the 1960s, which led to the Soweto uprising of 16 June 1976 and the 2015 protest #FeesMustFall. It is striking that the June 16 uprising was based on demands for better education, and yet four decades later, Soweto schools have still not achieved this,

despite education in South Africa being better funded. The #FeesMustFall protest movement began almost 40 years after high school students demanded access to better and decolonised education. It is yet to be seen whether these movements represent turning points in South Africa's search for a skilled population and an economically engaged youth.

1.8 Looking forward

South Africa's NDP Plan 2030, '*Our future – make it work*', cites a statement from the Reconstruction and Development Programme, 1994, which was implemented right after independence, as follows: that *no political democracy can survive and flourish if the mass of our people remains in poverty, without land, without tangible prospects for a better life. Attacking poverty and deprivation must therefore be the first priority of a democratic government.* After 27 years of independence, as South Africa looks forward, the NDP states: *South Africa belongs to all its people. We, the people, to one another. We live in the rainbow. The faces of our children tell of the future we have crafted.*

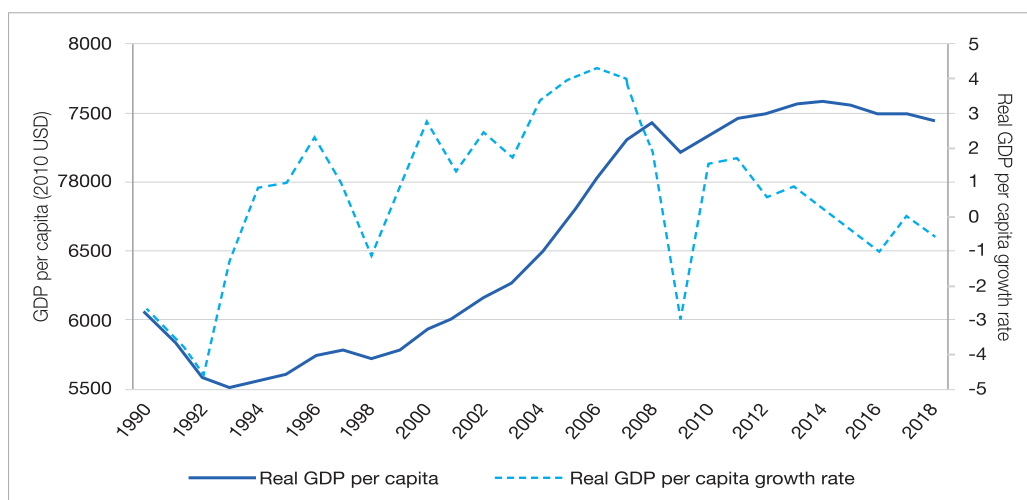
As South Africa plans the future of its future generations, three critical issues highlighted below, must be tackled:

- The major development challenges of the country;
- The future scenarios;
- The 2030 Vision for South Africa.

1.8.1 The major development challenges

Since the end of apartheid in 1994, the South African economy has been characterised by a long-run, low-growth trap. This is illustrated in Figure 1.3, which presents real GDP per capita and the real GDP per capita growth rate from 1990 to 2018. Although GDP has generally been growing steadily since international sanctions were lifted in 1994, recent growth rates have been weak. Negative growth was observed in 1998, followed by low growth of between 1 and 3 percent, and a sharp decline in 2009. Since 2010, real GDP per capita growth has been below 2 percent, with the rate of growth turning negative in 2014. The South African economy experienced three recessions since 1990.

Figure 1.3: Real GDP per capita values and growth rates in South Africa, 1990–2018



Approximately 55 percent of South Africans are living in poverty. If the lower-bound poverty level is considered, 40 percent of South Africans live in poverty, one of the highest in the middle-income countries of the world. Among the drivers of poverty, unemployment accounts for 52 percent of poverty, and years of schooling, 23 percent. In South Africa, income inequality, as measured by the Gini coefficient, increased from 0.59 in 1993 to 0.63 in 2019, i.e. one of the worst globally. The top 10 percent of South Africans own 86 percent of the country’s aggregate wealth, and the top 0.1 percent close to one third. The inability of so many people to find work exacerbates inequality. Thus, the decisive factor for being middle class or not is whether someone in one’s household has a job. It is estimated that 40 percent of youth aged 15–34 live in households where no adult has a job. In the third quarter of 2021, 35 percent of black South African

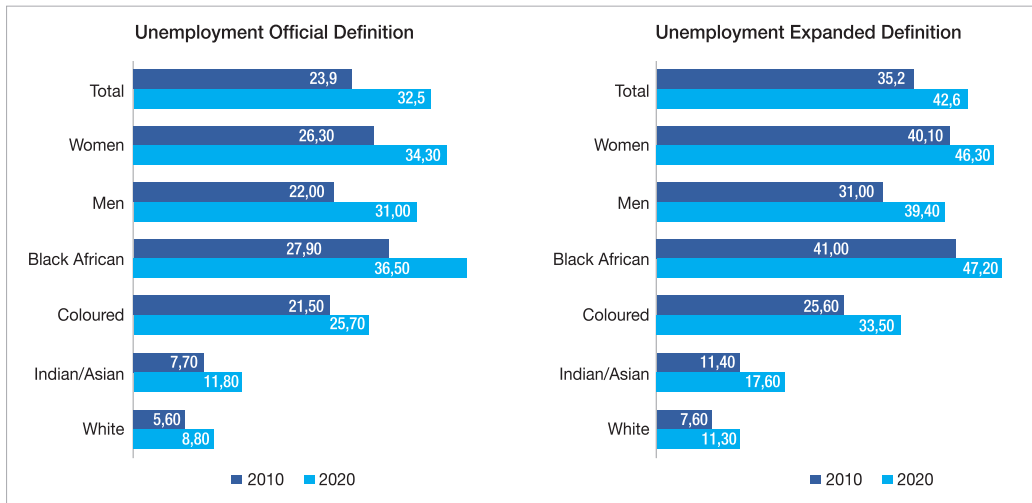
were unemployed, i.e. 13 percent higher than Indian/Asian South Africans, and 26 percent higher than white South Africans. In addition, 37 percent of women were unemployed, i.e. 4 percent higher than men.

The impact of this poor economic growth on the labour market has been significant. Indeed, as Figure 1.4 indicates, from 2010 to 2020, South Africa’s official unemployment rate increased from 24 percent to 33 percent. If an expanded definition of unemployment is taken, which in addition to official unemployment rate also includes discouraged workers who have stopped looking for work for various reasons, the comparable figures are 36 percent and 46 percent, respectively. But in the third quarter of 2021, the official unemployment rate in South Africa rose to 35 percent, and with the expanded definition, 47 percent.

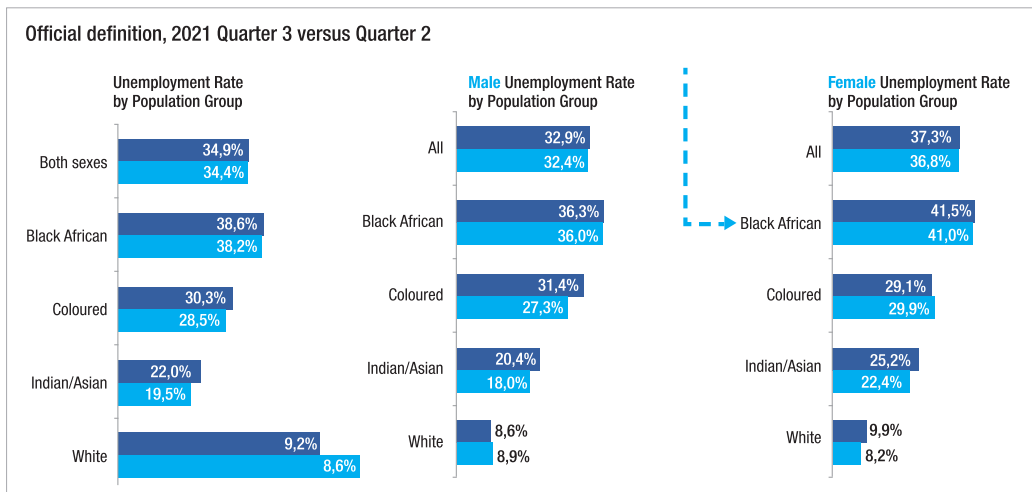
The unemployment rate of black South Africans, at **39 percent**, was **9 percent** higher than that of the coloured South Africans and **30 percent** higher than that among white South Africans

Unemployment in South Africa predominantly affects blacks, youth and females. Compared to other race groups, in the third quarter of 2021, the unemployment rate of black South Africans, at 39 percent, was 9 percent higher than that of the coloured South Africans and 30 percent higher than that among white South Africans. The unemployment rate of women was 37 percent, 4 percent higher than that of men. Irrespective of the definition of unemployment, the unemployment rate among the black South Africans is four times higher than that of the white South Africans.

Figure 1.4: Unemployment rates (official and expanded definition) 2010–2020, and third quarter 2021



Source: Meheme (2021).



Source: Stats SA (2021).

Over time, the development challenges in the South African economy have been exacerbated by sustained low levels of investment. The economy has also experienced a series of downturns. This has impacted adversely on the cost of borrowing. In addition, low levels of growth and challenges related to revenue leakages have also negatively impacted resource mobilisation. These challenges, combined with an increasing budget deficit and a rising stock of debt, have constrained the fiscal space.

Additionally, climate change has and has had developmental impacts in South Africa. This is a critical concern because it will affect the overall well-being of the country, for example, with regard to water resources. The various effects of climate change on rural communities are expected to include drought, depletion of water resources and biodiversity; soil erosion, decreased subsistence economies, and the cessation of rural, cultural activities. Climate change poses a development

challenge to South Africa, particularly with regard to water availability, which has been exacerbated by water scarcity in Western Cape in 2017–2018, combined with heat-waves and floods, among other weather extremes. It will have adverse impacts on agriculture and food supply, which may negatively impact food security and nutrition. In addition, rural communities will suffer from drought and loss of biodiversity, which will affect their subsistence livelihoods. Hence, heavy investment in climate change adaptation and mitigation, and substantial access to a large just and equitable transition fund are critical in promoting inclusive growth, shared prosperity and expanded job opportunities.

Rapid environmental changes are clearly impacting communities and the environment, such as changes in air quality, temperature and weather patterns, which affects food security. Since South Africa's energy system relies heavily on coal and oil, it is a major contributor to the global CO₂ emissions (14th in the world).

The main challenge relating to climate change is the need to address its direct effect on food security. South African agriculture is expected to be negatively impacted by droughts, reduced rainfall, and other changes in the environment due to climate change. Higher temperatures and less rainfall will result in limited water resources and changing soil moisture leading to decreased cropland productivity. Some forecasts indicate that surface water supply could decrease by 60 percent by 2070 in parts of the Western Cape. In 2020, maize, which was largest contributor to the gross value of South Africa's fields crops (36 percent), also experienced negative effects due to climate change. Climate change may also have negative impacts on the general public, especially due to the high proportion of vulnerable people. Furthermore, there is already a high burden of disease in South Africa linked to environmental stressors, which climate change will exacerbate. Climate change is projected to threaten public health through increased heat stress, a rise in vector-borne and infectious diseases, worsening extreme weather conditions, a decline in food security, and increased mental health stress.

1.8.2 The COVID-19 factor

The unemployment rate in 2020 and 2021 may have increased due to the impact of COVID-19 and related lockdown and restrictions. When the pandemic

struck in March 2020, South Africa's economy was already vulnerable after two consecutive quarters of recession. The pandemic deepened the economic crisis, inequality and poverty. Many people lost their jobs, lived without income for extended periods and went hungry every day. Indeed, between the Q1 and Q2 of 2020, the employment of workers in the bottom 20 percent of the wage distribution dropped by 35 percent, but by less than 10 percent for workers in the top 20 percent of the wage distribution. Furthermore, due to COVID-19, the highest losses recorded in jobs were in trade (309,000), community and social services (210,000), and construction (65,000). During the third quarter of 2021, about 15 percent of the 14.3 million persons who were employed were not expected to work during national lockdown, i.e. 2 in every 10. In addition, around 7 percent of those employed did not receive pay.

The stagnation of the economy for a long period combined with the COVID-19 crisis has also led to low levels of capacity utilisation in the various sectors of South African economy. This trend is projected to continue, leading to a dire situation regarding Gross Fixed Capital Formation (GFCF). A significant reduction in the GFCF variable is a troubling development given that it is critical in sustaining and growing the productive base of the economy. Drastic and prolonged declines in capacity utilisation also imply that investment plans and projects that were affordable prior to the crisis may no longer be so. Unless innovative economic management strategies are adopted, it may take around five years for the economy to revert to its pre-COVID-19 situation.

1.8.3 Future scenarios

As early as 2003, South Africa had a full appreciation of the difficult road ahead, which was reflected in the four scenarios it prepared at the time: *S'gudi S'nais*, a scenario characterised by an indecisive state, high but 'perverse growth'; *Skedonk*, a scenario characterised by divisions and anarchy; *Dudisanang*, a scenario characterised by an inclusive and caring society that, however, faces global insecurity and crises; and *Shosholoz*, an optimal scenario for South Africa where the country is at the cusp of capitalising on opportunities that

arise on the back of high economic growth and participation.

South Africa Scenarios 2030: Indlulamithi, launched in 2018, is cross-sector initiative designed to stimulate a national strategic conversation about the future of social cohesion in South Africa (Box 1.3). The most recent *Indlulamithi* scenarios were prepared in 2019 and focus on 2030. It seeks to answer the question, “*What would a socially cohesive South Africa look like and to what degree is it attainable by 2030?*,” and further informs the way forward for the country. The scenarios provide a compass to navigate the unknown. Combined with sound evidence, they can guide the nation in making difficult economic and political decisions with the knowledge that they are on the right path.

Box 1.3: Three scenarios of Indlulamithi South Africa 2030

Indlulamithi South Africa 2030 launched the following scenarios in 2019 to help South Africans imagine alternative 2030 futures:

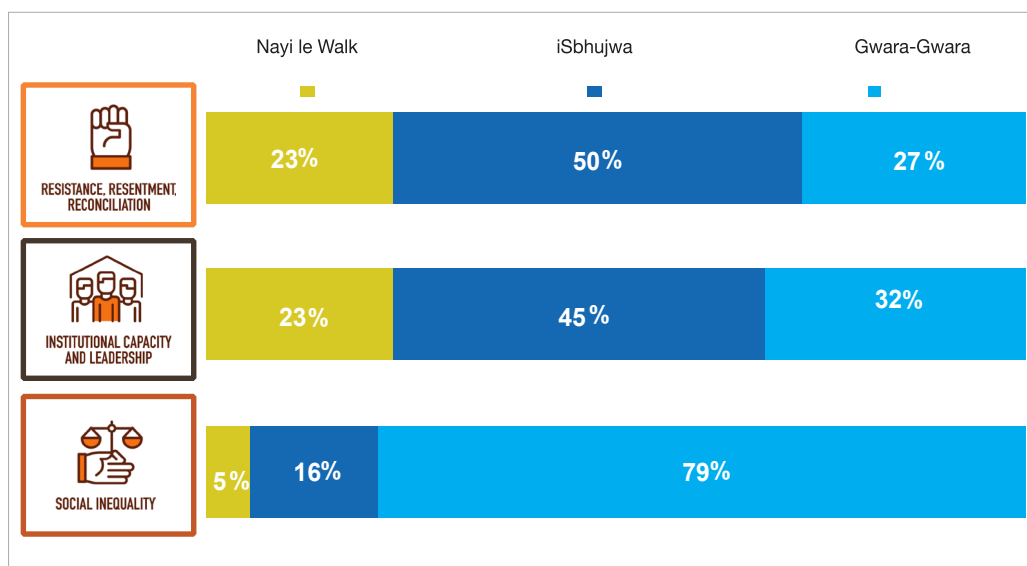
- **Isibujwa:** This is a scenario of a country living in enclaves among the bourgeoisie, the proletariat and the lumpen proletariat. In both instances, all seek rents by any means possible to make a living. This scenario has very strong elements of Skedonk and S’gudi S’nais. The difference is that the poor and the rich do not have a state to refer to and have to fend for themselves in an environment where public services have collapsed.
- **Nayi le Walk:** This is a scenario where the country is in step with itself, which allows for major reforms on a number of frontiers of micro economic policy and sectoral policies. It suggests the reopening of the macroeconomic framework, which generally deals with inflation targeting, the debt-to-GDP ratio and the government budget to GDP.
- **Gwara-Gwara:** It is a variant of the *S’Gudi S’nais* scenario. This is a fumbling and illusive new dawn.

Source: Based on Lehohla (2020).

The *Indlulamithi* scenarios will be updated every year to inform the country of the options ahead. They will serve as a toolkit for inspiring strategic conversations in society. Against the backdrop of the launch in June 2018, the Government took a number of steps to expose and deal with corruption, femicide and crime, and to ensure that state institutions would operate efficiently. The revived hope in the country became known as the ‘new dawn.’ Among high-level interventions carried out was an inaugural South Africa Investment Conference in October 2018. The Presidential Jobs Summit discussed unemployment, which generated a number of actions including the Youth Employment Service (YES) programme. A high-level Review Panel on the State Security Agency was appointed to facilitate the reconstitution of the country’s National Intelligence Services, and finally, a Summit on Gender-Based Violence and Femicide was held.

The *Indlulamithi South Africa Scenarios 2030* can serve as a point of reference and a source of information and inspiration for major national policy conversations and social compacting forums. Importantly, economic models are developed to address all the key assumptions made in each scenario, which are under-girded by real data. Unlike its predecessor, the *Idlulamithi* collects, analyses and releases a report annually. The first *Idlulamithi* report, which was published in 2019, a quarter of a century after the independence of South Africa, locates South Africa in both the *Isbujwa* and *Gwara-Gwara* scenarios, as shown in Figure 1.5. After 27 years of democracy, South Africa is still a highly unequal society where too many people live in poverty and too few work. The quality of school education for most black learners is poor. The apartheid spatial divide continues to dominate the landscape. A large proportion of youth feel that the odds are stacked against them. And the legacy of apartheid continues to determine the life opportunities for the vast majority. These immense challenges can only be addressed through a step change in the country’s performance.

Figure 1.5: Summary of first Idlulamithi Report 2019



Source: Lehohla (2020)

1.8.4 The 2030 Vision for South Africa

Twenty-five years after its independence, South Africa has a vision for 2030, which states that its people have journeyed far since independence. They have inherited a mixed legacy of inequalities in opportunity and in housing, but have agreed to change their narrative of conquest, oppression and resistance. By 2030, South Africans would like to live in a completely rebuilt country. The National Development Plan (NDP): Vision for 2030 serves as a blueprint towards realising this goal.

Under the policy blueprint, the *National Development Plan 2030: A new decade for sustainable development* aims to eliminate poverty and reduce inequality by 2030. Box 1.4 presents the Plan in brief. South Africa can realise these goals by drawing on the energies of its people, growing an inclusive economy, building capabilities, enhancing the State’s capacity, and promoting leadership and partnerships throughout society. South Africa has made remarkable progress in the transition from apartheid to democracy. This transition has been peaceful despite the country’s history of violent conflict and dispossession. In nearly every facet of life, advances are being made in building an

inclusive society, rolling back the shadow of history and broadening opportunities for all. South Africa has been able to build the institutions necessary for a democratic and transformative state.

To accelerate progress, deepen democracy and build a more inclusive society, South Africa must translate political emancipation into economic well-being for all. It is up to all South Africans to contribute towards a better future, beginning now. The Plan envisions a South Africa where everyone freely embraces their full potential, a country where opportunity is determined not by birth, but by ability, education and hard work. Realising such a society will require a transformation of the economy and focused efforts to build the country’s capabilities. To eliminate poverty and reduce inequality, the economy must grow faster and in ways that benefit all South Africans. Youth in particular deserve better educational and economic opportunities. The main focus of the Plan is on reducing poverty and inequality, through the main instruments of employment and investments. Although promoting gender equality and greater opportunities for youth are integrated themes that run throughout the Plan, greater efforts are required to eliminate gender inequality.

Box 1.4: National Development Plan 2030 at a glance

The plan in brief

By 2030

- Eliminate income poverty - Reduce the proportion of households with a monthly income below R41 9 per person (in 2009 prices) from 39 percent to zero.
- Reduce inequality - The Gini coefficient should fall from 0.69 to 0.6.
- Entrench a social security system covering all working people, with social protection for the poor and other groups in need, such as children and people with disabilities.
- Realise a developmental, capable and ethical state that treats citizens with dignity.

Enabling milestones

- Increase employment from 13 million in 2010 to 24 million in 2030.
- Raise per capita income from R50 000 in 2010 to R120 000 by 2030.
- Increase the share of national income of the bottom 40 percent from 6 percent to 10 percent.
- Establish a competitive base of infrastructure, human resources and regulatory frameworks.
- Ensure that skilled, technical, professional and managerial posts better reflect the country's racial, gender and disability makeup.
- Broaden ownership of assets to historically disadvantaged groups.
- Increase the quality of education so that all children have at least two years of preschool education and all children in grade three can read and write.
- Provide affordable access to quality health care while promoting health and wellbeing.
- Establish effective, safe and affordable public transport.
- Produce sufficient energy to support industry at competitive prices, ensuring access for poor households, while reducing carbon emissions per unit of power by about one-third.
- Ensure that all South Africans have access to clean running water in their homes.
- Make high-speed broadband internet universally available at competitive prices.
- Realise a food trade surplus, with one-third produced by small-scale farmers or households.
- Ensure household food and nutrition security.
- Ensure that all people live safely, with an independent and fair criminal justice system.
- Broaden social cohesion and unity while redressing the inequities of the past.
- Play a leading role in continental development, economic integration and human rights.

Critical actions

- A social compact to reduce poverty and inequality, and raise employment and investment.
- A strategy to address poverty and its impacts by broadening access to employment, strengthening the social wage, improving public transport and raising rural incomes.
- Steps by the state to professionalise the public service, strengthen accountability, improve coordination and prosecute corruption.
- Boost private investment in labour-intensive areas, competitiveness and exports, with adjustments to lower the risk of hiring younger workers.
- An education accountability chain, with lines of responsibility from state to classroom.
- Phase in national health insurance, with a focus on upgrading public health facilities, producing more health professionals and reducing the relative cost of private health care.
- Public infrastructure investment at 10 percent of Gross Domestic Product (GDP), financed through tariffs, public-private partnerships, taxes and loans and focused on transport, energy and water.
- Interventions to ensure environmental sustainability and resilience to future shocks.
- New spatial norms and standards- densifying cities, improving transport, locating jobs where people live, upgrading informal settlements and fixing housing market gaps.
- Reduce crime by strengthening criminal justice and improving community environments.

1.8.5 South Africa's economic reconstruction and recovery plan

Interventions of the South African Economic Reconstruction and Recovery Plan (ERRP), launched in 2020, pursue the NDP 2030 goals of reducing unemployment, poverty and inequality. ERRP's priority interventions and its proposed structural reforms are presented in Box 1.5. The Plan aims to ensure that, by returning the economy to its pre-COVID-19 situation, economic growth would be enhanced and more jobs created. The ERRP notes that in adversity so often comes opportunity. South Africa is now on the threshold of an important opportunity to imaginatively reshape its economic landscape, and with a unity of purpose. It is an opportunity to build a new, inclusive economy that benefits all South Africans. This is a moment for a permanent and decisive break with the past of low and declining growth, falling per capita incomes, low investment, as well as high and deeply entrenched levels of inequality, poverty and unemployment. Fundamentally, there is a consensus among social partners that, in order to generate growth and inclusive development, within the context of South Africa's historical trajectory, an exceptional form of state, a capable state, is required.

The ERRP consists of three phases: Engage and Preserve, which includes a comprehensive health response to save lives and curb the spread

of the pandemic; Recovery and Reform, which includes interventions to restore the economy while controlling health risks; and Reconstruct and Transform, which entails building a sustainable, resilient and inclusive economy.

1.8.6 Future development: Why a coordinated push is required

In South Africa, past development experiences show that development is not a solitary journey, but a collective effort. Therefore, it aims to coordinate its development efforts with initiatives at the global and regional levels. The future path towards 2030 for South Africa will also be informed and influenced by regional and global plans, structures and commitments.

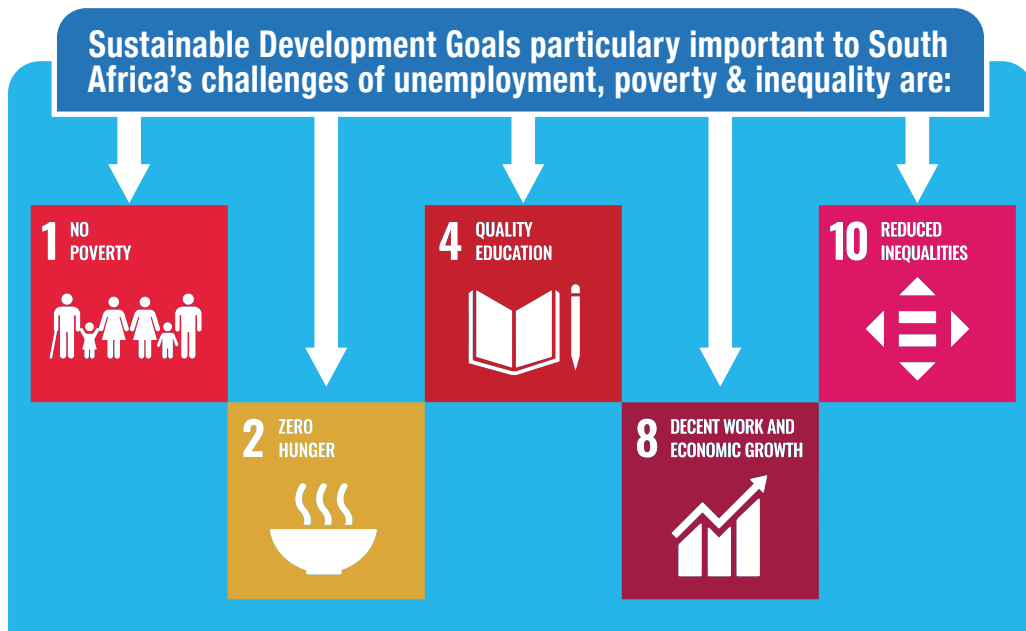
The Sustainable Development Goals (SDGs) are of particular importance to South Africa's challenges of unemployment, poverty and inequality, specifically: SDG 1 (no poverty), SDG 2 (zero hunger), SDG 4 (quality education), SDG 8 (decent work and economic growth) and SDG 10 (reduced inequality). The *SDG Country Report for South Africa* concludes that the NDP had a 74 percent convergence with the SDGs, and prioritises job creation, the elimination of poverty, the reduction of inequality, and growing an inclusive economy by 2030. The Report also highlights that South Africa established a national coordinating mechanism under the Department of Planning, Monitoring and Evaluation (DPME) to

Box 1.5: Priority interventions and reforms of South Africa's Economic Reconstruction and Recovery Plan

According to the South African Economic Reconstruction and Recovery Plan (ERRP), the following priority interventions will be carried out: an aggressive infrastructure investment; employment-oriented strategic localisation; reindustrialisation and export promotion; energy security; support for tourism recovery and growth; gender equality and the economic inclusion of women and youth; green economy interventions; mass public employment interventions; strengthening of food security; and macro-economic interventions.

To support economic reconstruction and recovery, the following structural reforms will be implemented: modernising and reforming network industries and associated state-owned enterprises; reorienting trade policies and pursuing greater regional integration to boost exports, employment and innovation; lowering barriers to entry to make it easier for businesses to start, grow and compete; supporting labour-intensive sectors such as tourism and agriculture to achieve more inclusive growth; creating greater levels of economic inclusion by *inter alia*, addressing high levels of economic concentration; resolving the economy's weak capacity to create jobs; boosting education and skills development; promoting greater beneficiation of raw materials; and addressing racial, gender and geographical inequalities that hamper deeper economic growth and development.

Source: Based on ERRP (2020).



strengthen implementation of development policies. The coordination arrangement further facilitates national engagements in and reporting on, in an integrated manner, the developmental agendas: the 2030 Agenda for Sustainable Development, the African Union's (AU) Agenda 2063, Southern African Development Community's (SADC) Regional Indicative Strategic Development Plan (RISDP) and South Africa's NDP 2030.

South Africa is an active member of the AU and is one of the key drivers behind Agenda 2063, which is Africa's blueprint and master plan for transforming Africa into the global powerhouse of the future. Its main goal is to deliver inclusive and sustainable development. Just like the SDGs, Agenda 2063 was published after South Africa had already published its NDP 2030 and they are significantly aligned. This is evidence that key authorities from South Africa played substantive roles in the formulation of both documents. It is expected that the current review of the NDP 2030 will place South Africa in a position to further take advantage of Agenda 2063, 2030 Agenda for Sustainable Development and the 4IR, and possibly the Fifth Industrial Revolution (5IR).

The SADC RISDP was a comprehensive development and implementation framework, which guided the

regional integration agenda of the SADC over a 15-year period (2005–2020), and was approved by the SADC Summit in August 2003. Its ultimate objective was to deepen integration in the region with a view to accelerate poverty eradication and attain other economic and non-economic development goals.

At the beginning of this decade, South Africa wishes to celebrate its achievements and learn from the history of its remarkable journey over the centuries as well as its struggles. But today, its focus is on its future; hence, the name NDP 2030: '*Our future – make it work*'. South Africa's younger generation is its future and its vision, work, creativity and innovation can take the country where it wants to go.

But to achieve this, youth need a culture of innovation, which can be enhanced in various ways: (i) innovation can be part of the educational syllabus, and innovative approaches by young entrepreneurs should be rewarded; (ii) incubators and laboratories can help develop it; and (iii) South-South collaboration on innovative and creative experiments can enable South Africa's youth to be more creative and innovative. These can induce game-changing knowledge among the youth, whose creativity, dynamism and innovative approaches can produce goods and services that

not only engages them, but will also earn foreign exchange from the rest of the world. This type of work is the most promising pathway out of poverty, informality and vulnerability.

Thus, the coordinated push for South Africa's future development should include: a national ecosystem

approach; different global approaches (e.g. SADC, Africa and global); a youth-focused and youth-driven agenda, and; a formidable alliance of youth groups at the national, regional and global levels. In this context, the next chapter describes the youth employment scenario in the larger context of the overall employment situation in the country.

The Youth Employment Scenario in South Africa

2.1 Youth: the present and the future wealth of a nation

Youth can influence the present with their creativity and innovation, and can shape the future with their visions and aspirations. In both cases, the critical enabling elements are the enhancement of their capabilities and the creation of opportunities. This is where the work of youth and work for youth are of prime importance. The work of youth refers to what youth can do using their skills and talents, and work for youth refers to what society can do for them to use their creative and innovative potential.

Youth employment and human development can be synergetic. In addition to income and livelihood security, work can provide youth with dignity and voice, and the potential for innovation to extend the frontiers of human development. A contrary scenario can also occur. As witnessed around the world, youth often find themselves in forced and bonded labour, trafficking, sex work and in the drug trade, etc., all of which are detrimental to human development. These activities undermine their capabilities, shrink their opportunities, violate their rights, shatter their dignity, and sacrifice their freedom and autonomy. Hence, there is no automatic link between the work of youth and human development.

Together with poverty and inequality, widespread unemployment has become a defining issue of South Africa's development challenge. Indeed, joblessness has become a major contributing factor to poverty and inequality. In the overall unemployment situation in South Africa, youth unemployment assumes critical importance for three basic reasons:

- Generating decent job opportunities is a key accelerator and a multiplier for addressing poverty and income inequality in the country.
- Productively engaging youth contributes to addressing social cohesion and accelerated reduction in social ills in society,

- Accelerated youth empowerment and employment helps to accelerate aggregate demand and the formation of a formidable middle class that lays the foundation for inclusive economic and sustainable development. Thus, when youth do not have the opportunities to contribute due to joblessness, the costs ripple across society (Box 2.1).

Box 2.1: The effect of youth unemployment ripples across society

Youth unemployment is:

- a moral tragedy of lost young lives and livelihoods for youth and their families;
- a business loss for employers who struggle to fill entry-level jobs with skilled workers;
- a public policy interest in lost economic potential, creativity and innovation, and a socio-political threat.

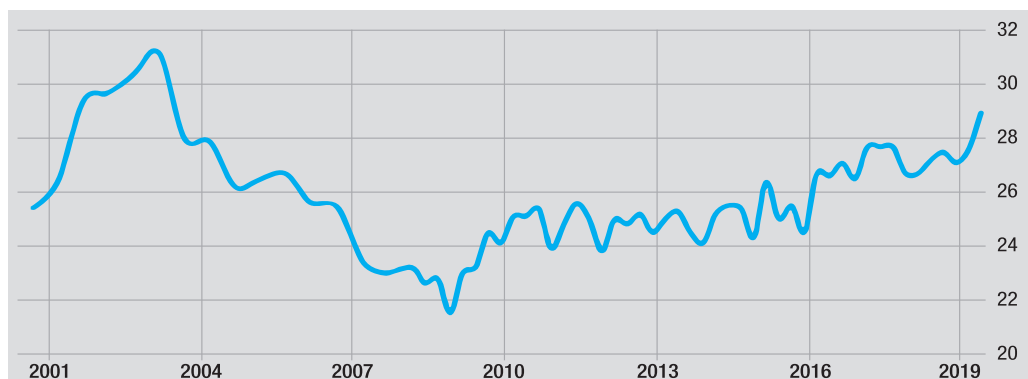
Source: Jahan (2019b)

Against this overall backdrop, this chapter presents the youth employment scenario for South Africa. To this end, it first describes and analyses the overall employment situation in the country in order to set the context. Thereafter, the analysis focuses on sectoral and specific issues, assesses policies and highlight the challenges, particularly with regard to COVID-19 and its impacts on employment.

2.2 The overall employment situation in South Africa

Unemployment has remained a historical and structural challenge for South Africa. Even in the last 20 years, the unemployment rate has never reached 20 percent – it has always been higher (Figure 2.1). When compared to other countries in the global context, joblessness in South Africa stands out. Among the BRICS countries (Brazil, Russian Federation, India,

Figure 2.1: Unemployment trends in South Africa, 2001–2019



Source: Computed from Statistics SA (2021).

China and South Africa), in 2021, only Brazil and South Africa had double-digit numbers (Table 2.1). Yet, South Africa is in a league of its own, with an unemployment rate at 35 percent, which is more than twice that in Brazil. The official unemployment rates in China, India and Russian Federation are much lower, but they may also reflect, to a greater extent, methodological issues related to estimating unemployment rates, rather than unemployment. Nevertheless, there is no denying that joblessness is a prime challenge for South Africa, and with the global economic slow-down the year of this report, the situation may become worse unless critical rectifying measures are taken immediately.

Table 2.1: Unemployment rates in BRICS, 2021

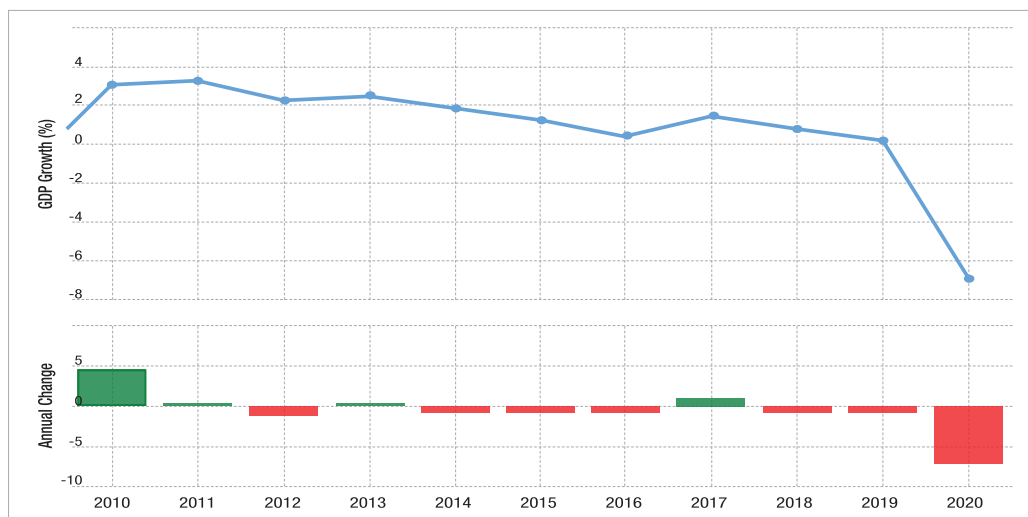
Countries	Unemployment rate (%)
South Africa	35
Brazil	13
India	8
Russian Federation	5
China	4

Source: Jahan (2019b).

2.2.1 Growth, jobs and unemployment

As Figure 2.2 indicates, the per capita GDP growth rate of 1 percent in 2010 has steadily declined and remained negative since then, reaching less than 2 percent since 2012 (Figure 2.2). Thus, the economic

Figure 2.2: GDP growth rate in South Africa, 2010–2020



Source: Stas SA (2021).

growth rate in South Africa has remained sluggish over time, and the prospect of a growth-induced employment scenario was not possible, as clearly shown in Table 2.2. From 2010 to 2020, due to the sluggish growth, employment increased by only 1 percentage point, from 39.2 percent to 40.2 percent and unemployment more than doubled, increasing from 13.8 percent to 28.8 percent.

Unemployment started rising around 1977 to 1983, and the trend has continued even in democratic South Africa. Economic growth averaged only 3.3 percent per annum in the 1970s and 1.2 percent in the 1980s, and due to a fierce policy-induced recession intended to cut inflation, growth between 1990 and 1993 was -0.6 percent per annum. This suggests, therefore, that the challenges of low economic growth rates, high unemployment, poverty and inequality were inherited from the apartheid regime.

The data from the recent Quarterly Labour Force Survey (QLFS) indicate that more people were participating in the labour market than during the COVID-19-induced lockdown period: some people worked from home or had reduced working hours or salaries.

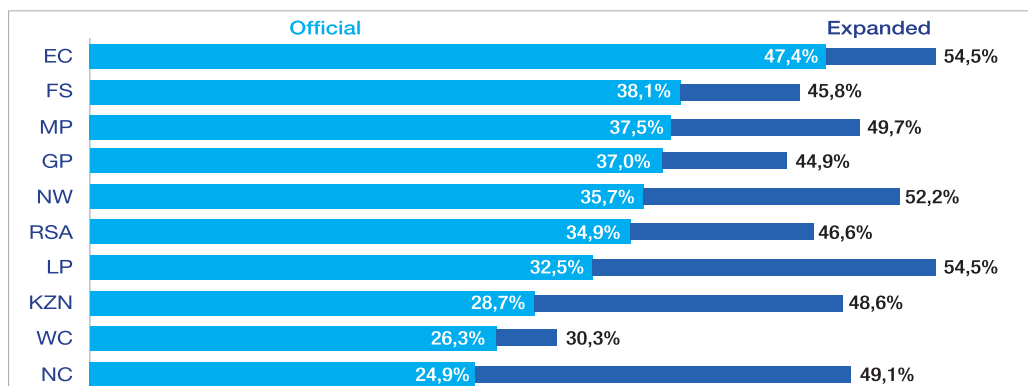
2.2.2 Disaggregation of unemployment by regions, population groups and educational attainment

The overall unemployment figures often mask high joblessness disparities between regions, among population groups, and across sectors. Disaggregating the average data conceals intense

deprivations in terms of joblessness and their consequences. For example, the national average of the official unemployment rate of 35 percent in South Africa conceals great variations among the provinces in the country (Figure 2.3), from 25 percent in North Cape to 47 percent in Eastern Cape. Five provinces – Eastern Cape, Free State Mpumalanga, Gauteng and North West – have higher unemployment rates than the national average of 35 percent, implying that almost one in every three people in these provinces are unemployed. All the numbers rise if the expanded definition of unemployment is used.

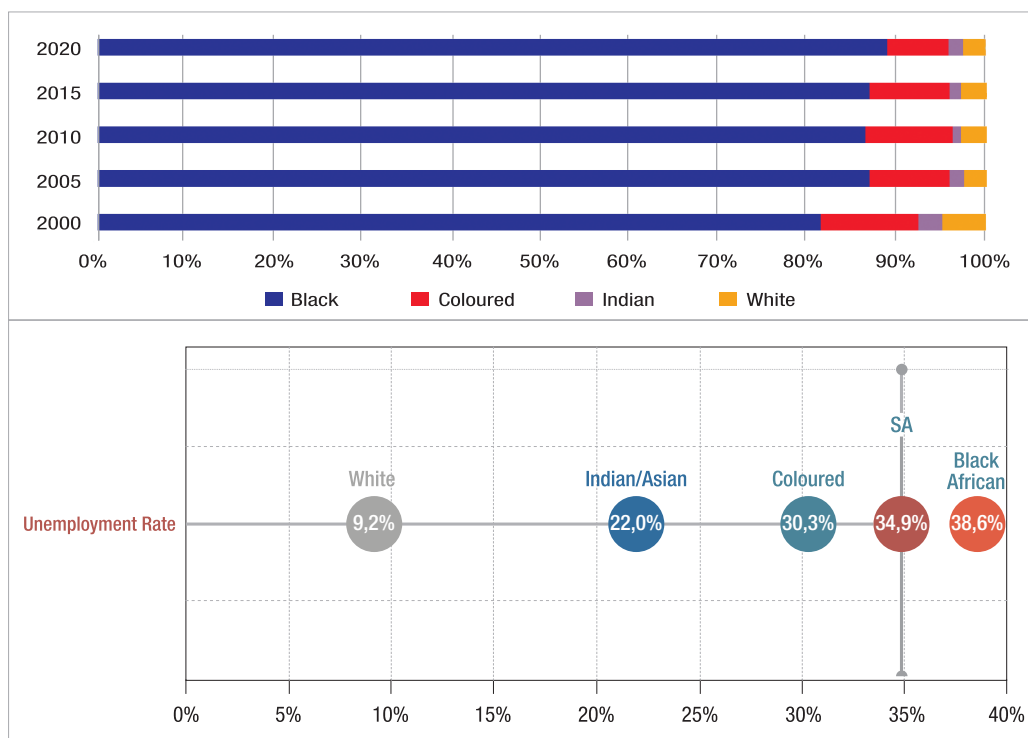
The upper panel in Figure 2.4 shows the proportion of South Africans unemployed by race, from 2000 to 2020, and the lower panel in the third quarter of 2021. As Figure 2.4 shows, unemployment affects the blacks more than other race. In the third quarter of 2021, their unemployment rate at 38.6 percent was much higher than that of any other race. This could be a result of the persistent legacy of apartheid. During apartheid, blacks had limited access to quality education and employment opportunities. Thus, South Africa must increase its efforts in transforming the economy and making quality education and economic opportunities accessible to previously disadvantaged individuals. Thus, a major challenge bedeviling South Africa is to find sustainable solutions to the past racial discriminatory policies that made it difficult for blacks to get further training and learning opportunities. These policies culminated in a large pool of unskilled and semi-skilled black labour.

Figure 2.3: Provincial official and expanded unemployment in South Africa, third quarter 2021 (%)



Source: Stats SA (2021).

Figure 2.4: Proportion of the unemployed in South Africa, by race, 2000–2020 (upper panel) and third quarter 2021 (lower panel)



Sources: Mehembe (2021) and Stats SA (2021).

More males are employed than females, and their participation is expected to increase. Table 2.2 confirms this: in 1995, the female unemployment rate was nearly 50 percent higher than the male unemployment rate. However, the gap has been

narrowing over the years as more females have become active in the labour market, as evidenced by the increase in their participation rate from 37.8 in 1995 to 53.8 in 2019, i.e. a 16 percent increase compared to a 10 percent increase for men.

Table 2.2: Participation, employment and unemployment by gender in South Africa (%)

Year	Female			Male		
	Participation (%)	Employment (%)	Unemployment (%)	Participation (%)	Employment (%)	Unemployment (%)
1995	37.8	32.7	36.4	55.7	54.5	26.1
2000	42.6	34.3	36.3	59.7	49.5	25.9
2005	39.9	34.0	36.6	57.9	50.5	23.6
2010	47.8	22.6	27.0	62.6	31.8	22.9
2015	52.0	24.6	27.5	65.1	33.5	23.2
2019	53.8	24.0	30.3	65.9	32.1	26.4

Source: Mehembe (2021).

Table 2.3: Unemployment and labour force by educational level in South Africa (%), 2000–2019

Year	Basic		Intermediate		Advanced	
	Unemployment (%)	Labour force (%)	Unemployment (%)	Labour force (%)	Unemployment (%)	Labour force (%)
2000	33.2	43.2	31.2	61.7	5.9	85.1
2005	33.4	38.2	29.8	59.4	3.7	82.4
2010	30.6	44.4	25.8	68.7	6.9	84.6
2015	31.5	46.8	25.8	68.5	8.9	83.6
2019	34.9	47.4	29.7	68.1	13.6	82.0

Source: Mehembe (2021).

Table 2.4 classifies labour market performance by educational attainment. The population is classified into three education groups: basic education, intermediate education and advanced education. Basic education refers to primary or lower secondary education, while intermediate education refers to post-secondary, non-tertiary education. Advanced education refers to short-cycle tertiary education, from a bachelor's to a doctoral degree or equivalent.

The Table 2.3 shows that advanced education is correlated with lower unemployment rates. This aligns with the findings that higher education is associated with better employment outcomes. The decrease in the unemployment rate for those with intermediate education, from 31.2 percent in 2000 to 29.7 percent in 2019, may be explained by the corresponding increase in their labour force, from 61.7 percent to 68.1 percent, and better employment prospects for those with basic education. The most significant finding from Table 2.4 is that the unemployment rate for those with basic skills is above the national average and increased from 33.2 percent in 2000 to 34.9 percent in 2019. Finally,

even for those with advanced education, the 2019 unemployment rate is high, at 13.6 percent.

The above findings are consistent with evidence in the third quarter of 2021. The Figure 2.5 presents the level of unemployment by educational attainment in South Africa. The unemployment rate among those without a matric certificate is more than three times that among young graduates.

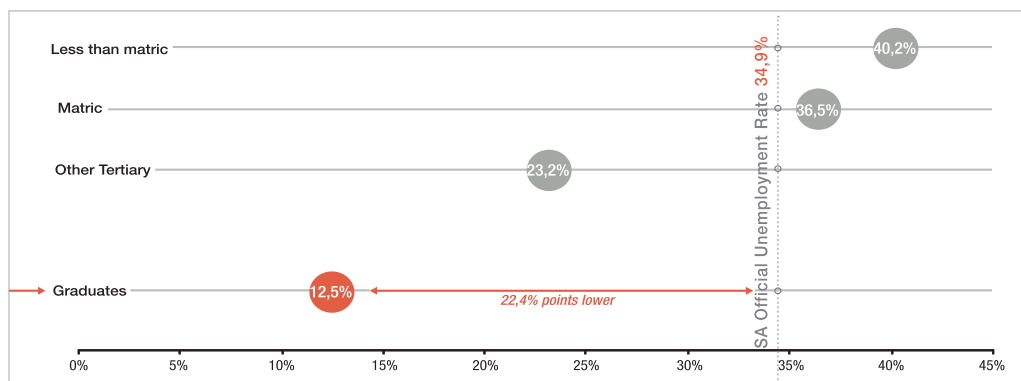
More females have become active in the labour market, as evidenced by the increase in their participation rate from 37.8 in 1995 to 53.8 in 2019

Table 2.4: Number of the formally and informally employed and economically active in South Africa, 1995–2019 and third quarter 2021

	1995	2000	2005	2010	2015	2019	2021 (third quarter)
Economically Active	13,174,147	14,750,110	17,716,252	18,737,358	21,243,812	22,838,770	21,900,000
Formally employed	9,484,262	10,100,611	10,129,176	10,230,077	11,568,835	12,358,501	9,600,000
Informally employed	1,868,489	2,080,637	2,974,969	3,943,051	4,331,050	3,901,286	27,000,000

Source: Mehembe (2021) and Stats SA (2021).

Figure 2.5: Unemployment by educational level in South Africa, third quarter 2021



2.2.3 Sectoral trends in employment and unemployment

Table 2.3 shows a dismal employment performance from 1995 to 2019. Formal employment increased by 30 percent, i.e. an annualised growth rate of only 1.1 percent. When comparing the official growth rate of formal employment against that of the economically active labour force, which grew by 73 percent, i.e. an annualised growth of 2.3 percent, it can be observed that there is a stagnant labour demand, which has contributed to the unemployment problem. However, there were some positives regarding the informal employed, which grew at an annualised rate of 3.6 percent per year. But in the third quarter of 2021, there was a significant drop in the number of economically active people as well as in formal and informal employment. This may be largely due to the significant adverse impacts of COVID-19 on the South African economy during the past two years.

Table 2.5 shows that between 1995 and 2021, the share of agriculture in employment was reduced by

almost two-thirds, from around 15 percent to around 6 percent. It also shows that the share of employment in manufacturing also declined between 1995 and 2019, from around 17 percent to around 10 percent. Indeed, this period saw a de-industrialisation due to over-regulation, the skills challenge, corruption, the low ranking on the Ease of Doing Business, and employers' adoption of labour-saving technology due to strife in the labour market.

As Table 2.5 indicates, the overall service sector has grown during the past 25 years. The primary sectors of agriculture and mining lost labour during this period, mainly due to the volatility of commodity prices on the world market. Extractive industries are at the risk of price fluctuations, which was exacerbated by the 2008 global financial crisis. The extractive sector has also been influenced by the Government's efforts to move up the value chain and focus more on processing than on exporting raw commodities. Support was directed to the secondary and tertiary sectors to the detriment of the primary extractive sector.

Table 2.5: Employment in South Africa, by industry, 1995–2019 and third quarter 2021

Industry	Total employment						2021 (third quarter) (%)
	1995 (%)	2000 (%)	2005 (%)	2010 (%)	2015 (%)	2019 (%)	
Agriculture	14.6	15.7	12.4	7.9	9.1	8.1	5.8
Mining	6.3	4.1	4.2	4.6	3.9	3.6	2.4
Manufacturing	17.4	14.2	14.1	12.5	11.0	10.7	9.8
Utilities	0.5	0.5	0.5	0.5	0.5	0.5	0.7
Construction	5.5	5.2	6.1	5.8	6.8	6.6	8.1
Wholesale and retail	19.5	20.2	23.7	25.4	25.5	26.6	24.8
Transport	3.5	3.7	4.4	4.9	5.3	5.4	6.7
Finance	13.9	15.2	16.9	19.0	19.5	20.7	19.4
Community services	18.8	21.3	17.8	19.4	18.5	18.4	22.3

Source: Based on Mehembe (2021).

The finance, transport, construction, and wholesale and retail sectors have witnessed an increase in relative employment over the study period. The increase in these sectors' contribution to the share of employment has mainly come from the trade sector due to internationalisation and consolidation. The wholesale and retail sectors have maintained their status as major employers in the country. Job creation in these sectors is a result of expansion of business services in the private sector.

Government spending on labour-intensive projects has sustained the community services sector as one of the major employers – the third largest employer by share of employment after wholesale and retail, and finance, as shown in Table 2.4. Government projects in community services have focused on using labour-intensive methods that absorb more of the labour force, and on skills development to keep abreast with labour market demands. This rise in the employment contribution of the finance and business services sector is attributed to technological advances, which smoothen operations even during periods of labour unrest. The ensuing growth of this sector has resulted in more job opportunities. However, the growth of the finance and business services sector is driven by debt, which may be difficult to service at current levels in the long-term, thus rendering the sector's growth unsustainable.

The consolidation of the tertiary sector as the major contributor to employment and the continued decline of employment in the extractive sector signify structural changes in skills demand. The tertiary sector is composed mainly of specialised skillsets, which improve employment opportunities. The extractive sector is the major employer of unskilled and semi-skilled labour. This is reflected in Figure 2.5, where youth with only a matric certificate or less represent the highest proportion of the unemployed. Their share of unemployment has also been growing at a higher rate, in line with the drop in employment in the extractive sector. Graduates contribute a smaller share of the unemployed, with only a marginal increase in their share of contribution to unemployment. It is important to ensure that the skills being taught are in line with labour market demands to reduce the graduate unemployment rate.

2.2.4 Employment in South Africa's informal sector

The informal sector in South Africa is a significant source of employment. In 2018, informal sector employment reached 2.9 million, or around 17 percent of total employment, i.e. one in every six South Africans worked in the informal sector. In the NDP, this sector together with domestic work are projected to generate almost two million new jobs by 2030. However, the informal economy in South Africa is relatively small compared to other developing or emerging economies and much smaller than other developing countries. For example, in India and Ethiopia, up to 50 percent of workers are employed in the informal sector; the figure is as high as 90 percent in Ghana and Mali. In South Africa, informal jobs make up roughly one-third (5 million) of total non-agricultural employment, which is a large segment of its workforce.

Table 2.6 presents historical trends from 2001 to 2013 in the percentage of South Africans running non-VAT registered businesses by province, age and race. It presents an indication of informality by different traits in the country. Three findings clearly emerge: (i) historically, blacks have dominated in the informal market, making up almost more than 90 percent; (ii) while the share of people in the 15–24 age group in the informal market has declined substantially, the share of people in the 45–54 age group has increased; and (iii) the informal sector was more prevalent in provinces such as Gauteng or KwaZulu-Natal, yet insignificant in the Northern Cape.

The informal sector is diverse and comprises all industries, not just trade. Most of the more-than-one-person enterprises are in construction, retail trade and services, but also in manufacturing and communication. The informal construction industry has a high propensity to employ. Furthermore, the informal sector is not static: in 2013, more than half a million new jobs were created in a one-year period, around 150,000 of which came from employment expansion in both one-person and more-than-one-person enterprises. In the same period, about 60,000 jobs were lost due to employment cutbacks. In addition, in 2013, about 300,000 business start-ups created around 380,000 new jobs, greatly increasing the annual entry of new enterprises. However, about 40 percent of these start-ups closed down within six months due to early-stage vulnerability.

Table 2.6: Historical trends of percentage of individuals running non-VAT registered businesses by different traits, 2001–2013

	2001	2005	2009	2013
By population group	Percent			
Black African	89,4	92,4	89,9	88,7
Coloured	3,7	3,1	3,8	3,1
Indian/Asian	2,2	1,0	1,1	2,6
White	4,7	3,5	5,1	5,5
Total	100,0	100,0	100,0	100,0
By age				
15-24 yrs	9,4	7,8	6,0	4,9
25-34 yrs	29,2	27,7	25,6	25,3
35-44 yrs	27,9	28,7	33,6	31,6
45-54 yrs	21,3	24,8	24,0	26,0
55-64 yrs	12,1	11,0	10,8	12,1
Total	100,0	100,0	100,0	100,0
By province				
Western Cape	5,3	5,6	6,8	6,0
Eastern Cape	10,1	12,4	12,2	9,5
Northern Cape	1,2	0,7	0,7	0,8
Free State	5,9	6,4	5,2	4,0
KwaZulu-Natal	25,4	20,0	20,6	20,0
North West	7,5	7,4	6,0	4,9
Gauteng	24,8	25,5	24,1	29,9
Mpumalanga	9,8	8,1	11,0	10,6
Limpopo	10,0	14,0	13,3	14,2
South Africa	100,0	100,0	100,0	100,0

Source: De Lannoy and Mudiriza (2019).

For many people who cannot find a job, the informal sector offers an alternative way to generate an income. It provides an unofficial social security system, serves as an option for self-employment, and is an avenue for people with insufficient skills for the formal sector. Through the informal sector, affordable and convenient goods and services are also delivered to local communities. Additionally, the sector provides opportunities for marginalised and historically disadvantaged groups, such as women. Street trade gives women with lower levels of education, insufficient skills and a lack of business literacy the possibility to support their household income, who, and in some cases, become the breadwinners, supporting a large number of dependants. It is estimated that there are 1 million women in the informal sector, out of a total of 6.8 million women in employment.

The informal sector in South Africa is an important alternative to the limited opportunities available in the formal sector; it is a survivalist strategy that allows those with little formal education to work and earn money. It is indeed remarkable for its poverty-

reducing effect. In addition, the informal sector is an important space for entrepreneurs. The employment in, and the income from, this sector provide a cushion for vulnerable groups for subsistence living. Without this sector, these groups would have been thrown into extreme poverty and deprivation. This is true of countries such as India, Mexico and the Philippines, where the informal sector has provided a cushion against deepening poverty. In the developing world, the informal sector, rather than being a driver of poverty, has been a rescuer from poverty. In South Africa, the loss of 100 informal sector jobs has roughly the same poverty-increasing impact as losing 60 to 80 formal sector jobs.

Thus, policymakers should not be indifferent about losing or destroying informal sector jobs. In a country where unemployment is currently 29 percent, this is a major concern. The informal sector should be recognised and included in economic strategies as it relieves some of the unemployment pressures, reduces household poverty, and contributes to the local economy. Although often viewed as a source of missed revenue for the Government, the

Government should see it as an important player in the South African economy.

2.2.5 Women's employment and entrepreneurship

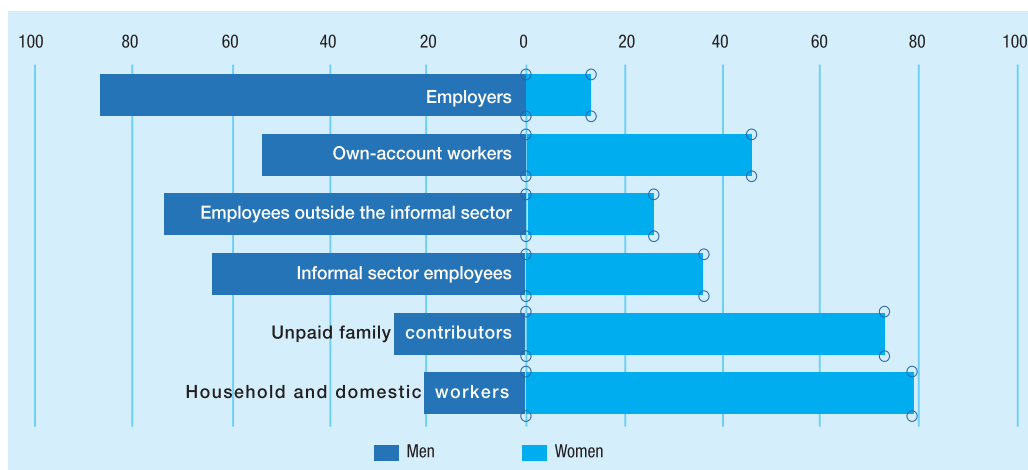
In 2019, the female employment rate in South Africa was 24 percent, down from 33 percent in 1995 (Table 2.2). The corresponding male employment rate was 32.0 percent, down from 54.0 in 1995. Female workers are heavily concentrated as unpaid family contributors and in household and domestic work, accounting for four out five workers. Female unemployment in the third quarter of 2021 was 37 percent, compared to 33 percent for male unemployment.

In the informal sector, there are clear divisions of gender roles. Men are dominant as employers, and women are heavily concentrated as unpaid family contributors and in household and domestic work (Figure 2.6). Men are more likely to work in

construction and transport industries than are women.

Women entrepreneurs play an increasingly vital role – socially, professionally and economically – in driving the South African economy (Figure 2.7) They help jump-start the economy and enable the recovery of food security, jobs and financial stability. In the Mastercard Index of Women Entrepreneurship (MIME), which tracks the ability of women entrepreneurs to capitalise on opportunities granted through various supporting conditions within their local environments, South Africa ranked 23rd globally and 1st in Africa in 2020. In South Africa, women-owned businesses established between 2018 and 2019 may generate about ZAR 175 billion and create close to 1 million jobs. South African women are excellent investors because they often achieve greater credit turnover, and women-led start-up businesses often deliver double the return on their investment.

Figure 2.6: Sex composition of informal sector employment, 2018 (%)



Source: Rogan (2018).

Female unemployment in the third quarter of 2021 was 37 percent, compared to 33 percent for male unemployment.

Figure 2.7: Female entrepreneurs – a key to South Africa’s socio-economic recovery



2.3 Assessing the employment policies of South Africa

The country’s first economic policy, the Reconstruction and Development Programme (RDP), which was adopted soon after the democratic elections in 1994, was a transformational policy document, whose economic thrust was redistribution (address-

ing inequality), economic growth and the stimulation of sustainable employment. The RDP did not have numerical targets, and thus focused on the provision of social services, equity and poverty reduction, rather than on growth and employment creation.

The RDP was quickly followed up with the *Growth, Employment and Redistribution* (GEAR) strategy,

adopted in 1996. This policy aimed to boost economic growth to 6 percent per annum and create 400,000 jobs per annum by 2000. The main thrust of GEAR was to transform the economy for international competitiveness. The main targets were missed, however, because the economy grew by an average of only 2.7 percent, and around one million jobs were lost between 1996 and 2001. The unemployment rate showed an upward trend during the RDP and GEAR periods. Some scholars attribute GEAR's failure to meet the promised economic growth, employment creation and poverty reduction targets to a policy that followed the neoliberal school of thought; hence, the Government was largely relying on the private sector to create employment and ultimately reduce poverty.

Faced with the challenge of low economic growth rates, increasing unemployment and high levels of poverty and inequality, in 2006, the Government crafted a new strategy, the Accelerated and Shared Growth Initiative of South Africa (ASGISA). Its main targets were to: achieve average annual growth rates of around 5–6 percent between 2004 and 2014; reduce unemployment from 26 percent to below 15 percent through the promotion of labour-absorbing economic activities; and halve the poverty rate to less than one-sixth of households. Compared to the two earlier policies, ASGISA recorded considerable success. For four consecutive years, 2004–2007, the economy grew by around 5 percent and real income per capita increased from ZAR 20,600 per person in 2001 to over ZAR 25,840 per person in 2007. Unemployment decreased from around 31 percent in 2003 to 23 percent in 2007. However, it rose again to almost 26 percent by the end of 2009. The positive gains were, however, interrupted and, in some instances, reversed by the global financial crisis of 2008–2009. According to The Presidency (2015), in the Twenty-Year Review 1994–2014, the crisis led to a loss of approximately one million jobs between the end of 2008 and the end of 2010. To mitigate against the impact of the global financial crisis, the country introduced the New Growth Path (NGP) in 2010, a successor to ASGISA.

The central theme of the NGP was the continual restructuring of the South African economy

to improve its performance in terms of labour absorption as well as the composition and rate of growth. Critical elements of the NGP were, first, the identification of 'job-drivers', i.e. areas with the potential for creating employment on a large scale, and second, the attempt to align national economic policy with industrial policy. The NGP was targeted to create more than 2 million jobs by 2020 in the sectors identified as job drivers, such as infrastructure development, manufacturing, mining value chain, agriculture, tourism and the green economy. One of the main criticisms of the NGP is that it lacked analytical rigour to deal with the key challenges it was meant to solve. A review of the Industrial Action Plan period from 2008 to 2018 showed that, although the economy recovered from the 1.5 percent slump in 2009, the average growth rates were less than half of the previous decade, and the unemployment rate continued on an upward trend.

Currently, all the economic, social and sectoral policies in South Africa are anchored in the NDP, which was adopted in 2012 and aimed to eliminate poverty and reduce inequality by 2030. According to the NDP, for South Africa to achieve these goals, there is need for faster and inclusive growth, and an increase in employment opportunities and general earnings. The NDP identifies the key economic strategies as: *raising exports, improving skills development, lowering the costs of living for the poor, investing in a competitive infrastructure, reducing the regulatory burden on small businesses, facilitating private investment and improving the performance of the labour market to reduce tension and ease access to young, unskilled work seekers.*

Furthermore, according to the NDP, raising living standards to the minimum required level will require various mechanisms, such as increasing employment, incomes and productivity, as well as social protection and quality public services. Some of the NDP targets include an average annual GDP growth rate of 5 percent, increased income levels to above the poverty line for all, and a reduction in the unemployment rate from 25 percent to 6 percent by 2030.

2.3.1 Major challenges in the employment arena

The overall employment scenario of South Africa faces critical challenges, including:

- **Sluggish economic growth:** There is a strong negative relationship between unemployment and growth in South Africa. For the country to succeed in its fight against unemployment, the policy focus should therefore be on boosting inclusive economic growth. Given the history of the country, where a large proportion of the citizens are poor, growth should be inclusive. Some threshold analysis confirms that the country needs to target an average annual growth rate of more than 4.3 percent.
- **Structural shifts of the South African economy:** The economy of South Africa has been undergoing substantial structural changes in the last four decades. While the primary sector (agriculture and mining) has been shedding jobs, there has been an increase in jobs in the tertiary sector (finance, transport, construction and wholesale and retail). The implication is that the demand for labour has shifted towards more skilled workers and that those who have lost jobs in the primary sector have struggled to find alternative work due to lower levels of skills.
- **Skills mismatch in the economy:** The structural change of the economy has been from primary and labour-intensive types of production to technologically inclined production methods. These methods demand higher-level skills, are capital-intensive, and have contributed to skills and qualification mismatches in the economy. The introduction of sector education and training authorities (SETAs) in 2000 does not seem to have closed the skills mismatch. This trend might have been worsened by the COVID-19 pandemic and advent of the 4IR.
- **Poor quality education:** The public spending on education as a percentage of the GDP has been relatively high in South Africa (around 6 percent against a global average of 5 percent in 2020). However, the country continues to score poorly on international skills assessments, as indicated by the Trends in International Mathematics and Science Study (TIMSS). To overcome this challenge, South Africa needs to continue investing in STEM.
- **Increase in labour supply:** There has been an increase in the number of black South Africans, and women in particular, joining the labour market, especially after the democratic breakthrough in 1994. For example, the female worker participation rate increased by 16 percentage points from 38 percent in 1995, to 54 percent in 2019. In addition, the growth in formal employment has not matched the increase in the total labour participation rate.
- **Poor Ease of Doing Business indicators and the cost of doing business:** Over the past five years, South Africa's ranking in the Ease of Doing Business Report has been relatively stagnant, while its BRICS counterparts such as China and India have recorded significant improvements. The costs of starting a business in South Africa are relatively low, yet the time needed to do so is long: the World Bank indicated that, in 2019, over 40 days were required to start a business in South Africa compared to 10 or less days for the Russian Federation, China and Nigeria.
- **Poor entrepreneurship frameworks:** According to the global results of the 2019 Global Entrepreneurship Monitor (GEM) study, South Africa ranked 49th out of 54 economies in terms of its 'entrepreneurship framework conditions' (a composite score of ease of starting and developing a business). The study highlighted that South Africa needs to improve entrepreneurship education at the primary and secondary levels, government policies (taxes and bureaucracy), and access and the quality of its own entrepreneurship programmes.
- **Specific constraints faced by women entrepreneurs:** While the country has made some excellent gains, there are structural obstacles and biases that impede female entrepreneurs from playing a greater role in South Africa's economic recovery. South African women have traditionally struggled with less access to capital and fewer assets than their male counterparts, and not owning property, which makes it harder for them to offer collateral for business loans. While female entrepreneurs are making strides to overcome gender-related biases and advance their business, they still face several social obstacles, many of which have been exacerbated by the COVID-19 pandemic.
- **The impact of COVID-19:** Across the globe, COVID-19 has affected most small and informal enterprises, and South Africa has been no exception. A study of 3,746 South African micro and informal businesses found that 8 percent of businesses closed down because of COVID-19 pandemic and the related lockdown. Young entrepreneurs were disproportionately affected by the pandemic, and as of July 2020, the lower utilisation rate of production capacity was 38 percent.

2.3.2 South Africa's youth unemployment in the overall context

Youth are particularly affected by unemployment since getting a job is the most promising pathway out of poverty, informality and vulnerability. Therefore, labour market developments have become the main drivers of inequalities for youth. Internationally, youth are defined as individuals aged 15–24 years; in South Africa, they now include individuals aged 15–34. According to Statistics South Africa, in 2017, there were approximately 20 million youth in the country, i.e. one in every three South Africans.

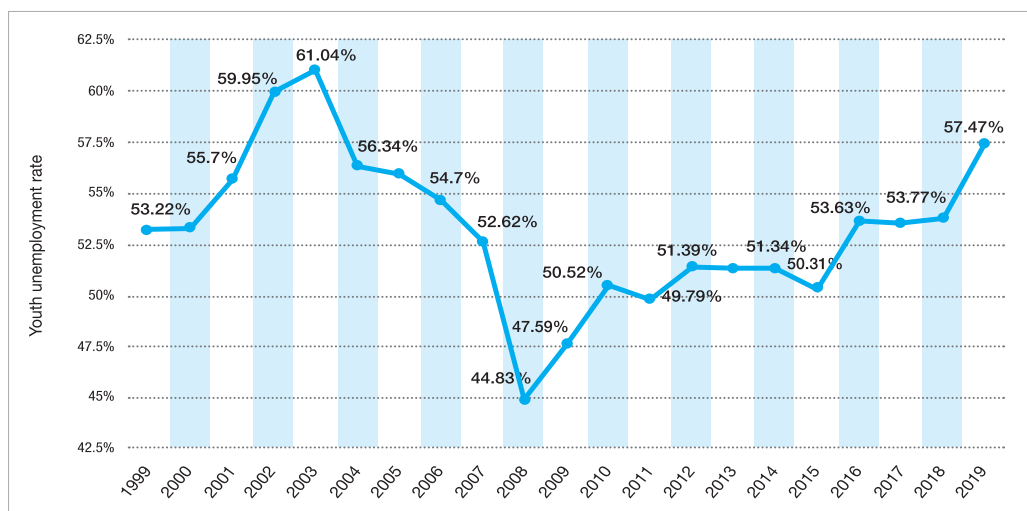
The historical trend from 1999 to 2019 in the unemployment of youth aged 15–24 is depicted in Figure 2.8. In 2019, it was 57 percent. In the third quarter of 2021, the official unemployment rate among youth aged 15–24 was 67 percent and among youth aged 25–34, 44 percent. Youth unemployment in South Africa is correlated to educational levels. Thus, the unemployment rate among youth without a matric certificate was 40 percent, and among youth with a matric certificate, 37 percent. Moreover, only 13 percent of young graduates were unemployed – 22 percent lower than the national average. Hence, education is still the key to improving youth's prospects in the South African labour market. Skills-based education and vocational education can aid youth employment. Entrepreneurship can also be key.

The historical evidence shows that every year, compared to the 4th quarter, unemployment among youth increases during the first quarter. This is mainly due to new entrants into the labour market. Nearly 86 percent of young, unemployed graduates aged 15–24 years were new entrants into the labour market in the 1st quarter of 2019, while the rest either lost or left their previous jobs, or were re-entrants into the labour market.

The challenge of youth unemployment for South Africa becomes clear when seen in the context of its neighbouring countries; the South African Development Community (SADC) is a good reference point. Table 2.8 presents the unemployment rate for SADC countries for 2015–2017. Among the SADC countries, South Africa's youth unemployment was significantly high: over this period, at over 50 percent on average, and only Namibia comes close, at 44 percent (in 2016), followed by Botswana and Lesotho, at around 35 percent.

In 2019, about 41 percent (8.3 million) out of 21 million youth aged 15–34 fell into the Not in Employment, Education or Training (NEET) category. In addition, in the third quarter of 2021, 34 percent of youth aged 15–24 years (3.4 million out of 10.2 million) were NEET. If the age group of the latter is expanded to 15–34 years, 46 percent were NEET. Hence, almost one in three young South Africans aged 15–24 were disengaged from the labour market. Around four in every ten young females were NEET.

Figure 2.8: South Africa: the youth unemployment rate, 1999–2019



When disaggregated, it emerged that among NEET youth, there is a bias towards women, blacks and urban areas. For example, 55 percent of youth in NEET are female, compared to 45 percent male. Similarly, among NEET youth, black youth constitute 88 percent, compared to 3 percent of white youth and 1 percent of Asian youth. And three out of five NEET youth live in urban areas. The incidence of NEET among youth varies across provinces, from 28 percent in Western Cape to 40 percent in North West.

Most NEET youth are from poor, grant-dependent households, or financially stretched and indebted extended families of single low-wage earners. They are predominantly urban or move between urban and rural areas. Typically, one out of every two have young children. Most of them live in households where there is no adult who has at least a matric certificate, and a significant proportion of them are the only adult in the household. NEET are generally not in, or eligible to be in, post-school education and training (PSET) institutions. Many have already attended some form of tertiary schooling but dropped out before graduating, usually for financial or other socio-economic reasons. They are unlikely to find jobs through their social networks because of distance.

Although most NEET have some form of education, most of them attended poor schools where the quality of education did not lead to the acquisition of basic communication, literacy and numeracy skills that many employers require. Poverty among the 15–24-year age group is mainly driven by educational attainment (36 percent), adult employment (16 percent) and NEET (15 percent).

2.3.3 Some critical issues related to youth unemployment

- **Education, both reflects and entrenches, inequalities in South African society:** The top 200 high schools in the country produce more distinction marks in math and science exams than all of the other 6,476 high schools put together. In addition, in 47 percent of high schools, not a single pupil meets a commonly accepted international standard for math. The quality of teaching is a major obstacle to better education.
- **The failure to deliver access to quality education and skills development can be considered a significant contributor to youth unemployment:** According to the Department of Higher Education and Training, in 2015, 985,000 youth were enrolled in public higher education institutions, 737,000

Table 2.7: Youth unemployment in the SADC region, 2015–2017

Country	2017	2016	2015
Angola	16.7	17	16.9
Botswana	36.6	36.8	36.8
DRC	7.7	8.1	7.8
eSwatini	43	43.3	44.7
Lesotho	33.2	34	34.2
Malawi	7.82	7.6	7.7
Madagascar	2.7	2.9	2.9
Mauritius	23.7	22.4	25
Mozambique	6.7	7.1	7.2
Namibia	43.9	44.2	41.3
Seychelles	-	-	-
South Africa	53.6	53.4	50.2
Tanzania	3.4	3.7	3.7
Zambia	16.1	16.4	16.5
Zimbabwe	8.2	8.6	8.8

Source: ILO (2019)

in public Technical and Vocational Education and Training (TVET) colleges and 283,000 in community colleges. In addition to these formal PSET institutions, approximately 200,000 youth were enrolled in learnerships and/or skills programmes managed by the Sector Education and Training Authorities (SETAs). These figures show the relatively low number of youth enrolled in PSET compared to the youth population.

- **The South African labour market is characterised by stricter labour market regulations, which may adversely affect young workers:** These strict regulations make it difficult to hire and fire, and if wages are raised, this labour market rigidity in the country and strong unionisation may result in employers' unwillingness to hire youth. However, the current literature review found very few studies that present actual, comparative analyses of the impact of South Africa's labour regulations, wages (including minimum wages)

and unionisation. A comparative analysis is shown in Box 2.2.

- **Beyond their individual circumstances, there are other structural factors that entrench youth disadvantages:** The cost of the job search in terms of transportation and mobilisation, printing CVs and job adverts, as well as internet access is unaffordable for young job-seekers. The high transport costs further impact job retention for most of them, especially when they account for more than 30 percent of their take-home salary, which is the case for many low-skilled workers. The most commonly reported reason for a young person rejecting a job was due to distance and travel costs. Therefore, the youth employment challenge is a persistent reality. Addressing it requires dynamic and strong social partnerships between the Government, the private sector, labour and communities or the non-state sector to identify and develop relevant solutions that respond to the typical needs of different categories of youth.

Box 2.2: Labour market conditions in BRICS countries

Although it is possible to observe among the BRICS countries that labour market conditions and labour legislations show significant differences, there are also some common elements. For example, the informality of the labour markets is a common phenomenon in countries such as Brazil, India and South Africa. These countries also share the goal of making their national labour markets more productive, flexible and skilled.

In discussing the issues of labour market conditions in BRICS, the following are critical: flexibility in the labour markets; labour market reforms; and labour market regulations on innovative measures.

- Due to the large-scale informality in labour markets of Brazil, India and China, there is a de facto flexibility in the national labour markets in these countries. There are three implications of this scenario: (i) the contractual agreements in most of the labour markets are loose and open-ended, (e.g. India); (ii) social protection coverage is only for the formal part of the labour markets (e.g. Brazil and India); and (iii) unionisation is neither extensive nor strong (except in South Africa).
- The state of **labour market reforms** is at different levels and pace in various BRICS countries. For example, China is already at an advanced stage of implementation of labour market reforms. It has long been implementing the *Enterprise Minimum Wage Regulation*, which is not the national minimum wage, but has created a regulatory framework that allows local authorities to set minimum salary agreed with trade unions and employers' associations. After contractual reforms, there are now three types of contracts in China: the *open-term contract*, the *fixed-term contract* and the *contract for performing specific tasks*. China focuses on two specific aspects: (i) creating the conditions to combat the use (or the misuse) of informal work and meeting the flexibility of the business world; and (ii) protecting workers with measures that aim to ensure that, after an initial period under a fixed-term employment contract, their position will be stabilised, thus avoiding the inconvenience of contract renewal. However, even though Russian Federation has been signatory to a number of United Nations labour rights conventions, there are significant differences between international labour standards and the Russian labour system.
- Countries were forced to adopt innovative measures to regulate their labour markets in order to make them more productive and efficient. For example, China has had to take effective measures to ensure the transfer of 450 million workers from the public to the private sector.

Source: Based on Beltrame and Cappelletti (2018).

- **Market information plus matric education is not conducive to disadvantaged youth:** The current system of market information makes it hard for the disadvantaged youth of South Africa to find job opportunities and for employers to find entry-level candidates because employers engage in low-risk hiring practices, favouring experienced workers over first-time job seekers. Also, the quality of the secondary schools is highly variable, causing employers to dismiss the matric certification as a reliable indicator of competence and insist on tertiary qualifications. The standard screening and selection tools and methodologies frequently filter out disadvantaged candidates.
- **The paradox of job vs. experience for South Africa's youth:** With a lack of sufficient work experience, they cannot obtain a job, but in order to obtain a job, they need sufficient work experience.

2.3.4 Migration of young South African labour

South Africa is a major source of outward remittances, especially to other SADC countries. The country has also experienced emigration. In 2019, it was estimated that more than 824,000 South Africans were working outside the country whose remittances to South Africa represented 0.26 percent of the country's GDP. The Southern African region has long had steady cross-border labour migration patterns. In South Africa, several factors are deemed responsible for the changes in mobility patterns that are currently experienced in the 21st century. One of the key reasons is the end of apartheid, a system that curtailed the mobility of people within the country and limited the immigration of foreigners to South Africa. South Africa is a major source of skilled labour in the SADC region and a major labour-exporter to countries such as Botswana; estimates indicate that more South Africans are working in Botswana than the reverse. The United Republic of Tanzania and South Africa attract high-skilled labour in financial services. Upskilling trends are on the rise among semi-skilled migrants to South Africa while commercial agriculture absorbs the large majority of low-skilled migrant labour to the country.

There has been an overall decrease in out-migration of skilled health workers from South Africa since the early 2000s largely attributed to a reduced need for skilled, foreign-trained health workers in destination

countries, limitations on recruitment, and tighter migration rules. Low levels of worker satisfaction persist, although the 2007 Occupation Specific Dispensation (OSD) policy, which increased wages for health workers, has been described as critical in retaining South African nurses. Return migration was reportedly a common occurrence. The most promising initiatives are designed to reinforce the South African health system and that are undertaken in the country.

Revenue obtained through cross-border trade is often the primary source of income for small-scale traders in the region, notably for women and youth. Although accurate data on the volume of informal cross-border trade are limited, estimates range between 50 and 60 percent of total intra-Africa trade. Seventy percent of informal cross-border trade is undertaken by female migrants, and accounts for as much as 30–40 percent of SADC trade. In South Africa, independence from the more male-dominated, rural social systems is an important driver for young female rural-to-urban migration.

The most common form of human mobility in South Africa, as in the rest of the SADC region, has been rural-to-urban migration. This is believed to have a direct impact on rural livelihoods through remittances. Rural or peri-urban households, particularly among the black African population, are highly likely to have one migrant – and sometimes more migrants – who send money back from urban workplaces to the remaining household members. The main reasons for migration of youth within the country are education and employment. Non-disaster-related internal labour migration trends in the sub-region are largely rural to urban.

Between 2011 and 2021 in South Africa, due to its relatively larger population size, Gauteng province recorded the highest number of young migrant worker inflows and outflows. Gauteng, Mpumalanga, Northern Cape, North West and Western Cape provinces of South Africa experienced a net migration of youth.

2.3.5 Young South African women in employment and entrepreneurship

In 2019, the female unemployment rate in South Africa was estimated at 30.3 percent (Table 2.3); among young females, it was twice as high, at

more than 60 percent. Many South African young entrepreneurs manage businesses, many of whom are in the informal sector. Box 2.3 highlights some of the success stories of South African young female entrepreneurs. And since women typically use more than twice as much of their earnings as do men to support, educate and empower their families and communities, the success or failure of these female-owned businesses has an enormous ripple effect.

Box 2.3: Success stories of young female entrepreneurs in South Africa

Thato Kgatlhanye and Rea Ngwane co-founded Repurpose School bags for poor South African students using recycled plastics. The plastic bags, which are affordable for all poor South African students, feature a solar panel in the flap, which can be charged whenever students need. These charged solar panels help to provide lighting at night for the students to study.

Repelang Rabana is the founder and CEO of Rekindle Learning, an education technology company that believes in using the transformative powers of computers and mobile devices to overcome educational inefficiencies.

Claire Reid invented a biodegradable seed tape, which takes the hassle out of growing domestic and herb vegetables. Her company, Reel Gardening, uses the innovation to produce its own garden-in-a-box products, which target consumers looking for a quick, affordable and simple means to produce their own food.

Source: Udeh (2019).

Many young female South African entrepreneurs are faced with seemingly insurmountable challenges in their businesses, ranging from discrimination that stems from the apartheid era to the inherent patriarchy of African culture. This entrenched system of social inequality results in an economic disparity that makes it extremely difficult for them to succeed. They face five basic challenges, which are deeper than the broader entrepreneurial challenges that other groups face. The five basic challenges are outlined below:

- **Lack of access to finance:** The African Development Bank estimates the financing gap for African women at \$42 billion (ZAR 607 billion).

Even under normal circumstances, women who successfully launch their own businesses struggle to obtain funding to expand. African women often lack access to traditional collateral, and their businesses are not necessarily well documented. This makes it difficult for them to satisfy the legal and regulatory requirements for a loan from financial institutions. Many opt out of even attempting to do so, since they believe that the odds are stacked against them. And yet, despite the difficulties they face, women are more likely than men to follow through on their repayments.

- **Lack of access to technology:** For small businesses, it is critical to be able to receive and make payments easily and access credit at the click of a button. In Ghana, for example, Ecobank and MTN have successfully rolled out a digital micro-lending service. This kind of digital platform enables both customers and businesses to follow lockdown protocols, and with the added benefits of increased productivity and lower costs, their use has grown exponentially. However, the gender gap arises here, too. African women are about 45 percent less likely to be online than men, and they need assistance with both access and training.
- **Lack of access to education:** Education needs to focus on developing entrepreneurial skills, such as planning, launching and managing a business, mastering the necessary technology, and improving women's financial literacy to empower them to run a business and access funding when it is time to scale up. In addition, personal initiative training is important for teaching women to be proactive and to persevere despite difficulties, given their resilience in difficult times. Extending training to younger girls is crucial, because it primes them for future success and reduces the chances that they will leave school or fall pregnant.
- **Lack of access to mentoring and resources:** Partnerships with businesses that can mentor female entrepreneurs and provide access to funding, business services and other resources can be extremely successful. Initiatives such as the Anzisha Prize programme help to facilitate these kinds of partnerships by identifying and training high-potential, young African entrepreneurs, and

then connecting them to mentors and funding opportunities. Women also need to be able to access various platforms and networks that introduce them to innovative challenges and other similar competitions that provide seed capital or skills development opportunities.

- **Lack of support from governments:** To empower female entrepreneurs, governments need to implement gender-sensitive policies and other supportive initiatives, such as offering tax incentives for businesses that invest in or outsource to women-led SMEs. Although there is still a long way to go, steps have been made in the right direction; for example, President Cyril Ramaphosa's target of ensuring that at least 40 percent of goods and services procured by public entities should be sourced from women-owned businesses and his commitment to engage with financial services on their behalf.
- **Biased social values and norms:** Like other societies of the developing world, social values and norms may have biases against women as entrepreneurs. Societies may still see women in their traditional roles and lack confidence in women entrepreneurs. Although slow but steady changes have been taking place in social outlooks, there are still hindrances.

In this context, a *National Pathway Management Network* was created for young job-seekers to view and access learning and work opportunities, to receive a basic package of support and work readiness training, and to be matched to employment and other economic opportunities. This is especially important for youth who are marginalised and excluded from the economy. Through this platform, youth receive support in-person and online to create their CV and to develop their job search

and interview skills. They will also complete online assessments to show their capabilities so that they can be matched to jobs and opportunities available in the market. The next priorities are skills development, followed by self-employment and giving youth work experience. Finally, a Presidential Youth Service programme was established that will provide opportunities for youth to give back to their communities and contribute to nation-building while improving their employability.

The youth unemployment situation has been exacerbated by COVID-19, which has been particularly devastating to women-owned businesses, in addition to the challenges usually faced by SMEs, such as irregular cash flows and limited financial reserves. To make matters worse, with schools closing, many young women have had to prioritise staying home to care for their families over running their businesses. Women in South Africa also face tougher conditions because of the COVID-19 pandemic. Female-run businesses made up 52 percent out of the 8 percent of businesses that closed down during the pandemic. Women accounted for two-thirds of all job losses during this period. Also, around 60 percent of women-owned businesses operate in the sectors that have been hardest hit by the economic downturn, such as retail, restaurants, food shops and domestic services.

When given the opportunity, young women are naturally enterprising and resilient, and their economic influence on their families and the community is transformative. If historical inequalities are addressed and remedied, and the right initiatives and policies are put in place, the post-pandemic world could truly be a safer, more sustainable and more abundant world for all South Africans.

.....

Women accounted for **two-thirds** of all job losses during this period. Also, around **60%** of **women-owned** businesses operate in the sectors that have been hardest hit by the economic downturn, such as **retail, restaurants, food shops and domestic services**.

.....

2.4 Assessing South Africa's policies on youth employment

In South Africa, both the NDP and the Vision 2030 aim to reduce the unemployment rate to 6 percent and achieve an average growth rate of 5 percent by 2030. These goals hinge critically on the creation of work opportunities for youth. It is of utmost importance, therefore, to assess South African policies on youth employment.

2.4.1 The Expanded Public Works Programme

With 50 percent of youth without jobs, South Africa is faced with rampant unemployment combined with high levels of poverty and inadequate skills. To alleviate this situation, in 2004, the South African Government introduced the labour-intensive Expanded Public Works Programme (EPWP) to provide income relief through temporary work and contribute to the national goal of poverty reduction. The EPWP is a nation-wide programme that makes systematic use of public investments, mostly infrastructure at the municipal level, to create employment opportunities and to develop marketable skills and the entrepreneurship capacities of targeted, marginalised sections of society.

From 2005 to 2009, the programme created over 1.6 million jobs, 60 percent above its target of 1 million. In 2010–2011, EPWP created around 200,000 full-time jobs, of which 50 percent were for youth and 60 percent for women. The Government also created the Community Works Programme (CWP) in 2007 as an employment safety net to supplement livelihood strategies through access to a minimum level of regular and predictable work opportunities in social sectors. By April 2011, the CWP had created almost 100,000 work opportunities across all nine provinces. The programme was scaled up to a million work opportunities by 2013–2014.

2.4.2 The Youth Employment Service

Interventions such as the *Youth Employment Service* are generally aimed at assisting youth in gaining work experience in order to improve their entry into the labour market. They focus on youth inclusion and breakthrough innovations, together with 'learnerships', which have both an element of training and work experience. Participation in these programmes is low, however, and to a large extent,

they exclude the majority of youth who are currently NEET and who require different interventions to overcome their disadvantages. There is a need for interventions that manage and facilitate work readiness and job placement, particularly focusing on low-skilled jobs, youth with lower levels of education, and youth from disadvantaged backgrounds.

2.4.3 Work readiness programmes

These programmes primarily aim at preparing individuals for the world of work by providing the knowledge, skills and attributes required to make the transition into the work place. Programmes such as Harambee Youth Employment Accelerator have played a particularly important role in the past five years, providing insight into what employers expect from youth, as a minimum, for entry-level jobs. These programmes have shown that employers are less interested in skills for entry-level jobs and more in attitudes and behaviours. Therefore, a critical component of a work readiness intervention is to ensure that youth are able to cope with the specific requirements for a job.

2.4.4 Job placement interventions

Job placement interventions aim to ensure that youth move into contracted opportunities such as a job, a learnership or an internship. Many private placement agencies focus on higher-level occupations, whereas the Department of Labour placement services and a range of initiatives supported by the Jobs Fund through the job-seeker window (such as Harambee and Mr Price Foundation) focus on youth with limited formal qualifications and often no experience, assisting them in accessing employment. Critical to the success of these programmes are strong relationships with employers, and ideally, a process that matches candidates with opportunities in which they are likely to succeed.

2.4.5 Skills upgrading programmes

Breakthrough innovations in *skills upgrading programmes* do not necessarily require long, formal tertiary education. Empirically, there is a growing number of jobs in growth sectors of the economy, such as the digital economy, coding and logistics that do not require a tertiary education, but that do require some upskilling over and above schooling, especially given the poor numeracy, science and English outcomes of the South African educational

system. These programmes should be focused and fit-for-purpose, and demand-focused, work-related skills interventions can be delivered by private, public and social sector entities in a less expensive ways than traditional formal education.

2.4.6 Youth Wage Subsidy

The Government of South Africa introduced the *Youth Wage Subsidy*, which is an incentive for private firms to assume first-time work seekers by subsidising the cost of recruitment. However, recent evaluations of wage subsidies are disappointing. The Government continues to support learnerships – a model that combines theoretical training, experiential learning and on-the-job learning – by offering tax breaks to companies hosting learners. Recently, the Government has made the same incentives available for *internships and apprenticeships* together with the condition that 5 percent of the Government’s own workforce should be interns, learners, or apprentices. With around one million employees, South Africa’s biggest employer, the Government, has opened up at least 50,000 job opportunities for first-time work seekers.

2.4.7 A cluster of interventions for improving the quality of education and skills

The concern over the failure to deliver access to quality education and skills is reflected in the economic policies, the standardisation of PSET qualifications, the design of some public employment programmes, the equalisation of public funds for all schools, and the development of post-apartheid education policies and curricula. Investments in the unified educational system have been significant and are also reflected in, *inter alia*, the roll-out of the No School Fee Policy, the Schools Nutrition Programme, the National Qualifications Framework (NQF) and the National Student Financial Aid Scheme.

To date, the outcomes are limited, however. In terms of the level of achievement of the school-to-work transition, the average unemployment is relatively high for all levels of education of youth aged 15–24, although it decreases, to a limited extent, for those with matric, graduates and tertiary level, and slightly improves for youth aged 25–34. There has been minimal impact, partly due to the poor coordination of these initiatives. In addition, most of these initiatives target those who are likely to succeed in

the mainstream, and they do not directly address the needs of and circumstances faced by many vulnerable youth.

A significant amount of resources are spent by the Government, in particular, which are channelled through the PSET system to increase the number of participants. However, the conversion rate at each level of the system is a serious concern, with high drop-out and throughput rates. In addition, the output from the basic education system is low, further constraining the pool available to participate in PSET.

2.4.8 National Youth Development Agency

The Government created the *National Youth Development Agency* (NYDA), whose mission is to mainstream youth issues into all sectors of society and facilitate youth development. Its activities can be summarised as: lobbying and advocating for integration and mainstreaming of youth development in all spheres of government, the private sector and civil society; initiating, implementing, facilitating and coordinating youth development programmes; monitoring and evaluating youth development interventions across the board; and mobilising youth for active participation in civil society engagements. The NYDA partnered with the Industrial Development Corporation (IDC) and the Small Enterprise Finance Agency to assist youth-owned businesses with funding and support over a period of five years. This grant programme of ZAR 25 million offers both financial and non-financial support to qualifying young entrepreneurs aged 18–35. A ZAR 2.7 billion fund has been set aside to kick-start young entrepreneurs in South Africa who have the potential to create jobs and keep South Africa growing. The achievements of NYDA are impressive: nearly 79,000 youth accessed life skills and job preparedness training; nearly 22,000 beneficiaries were supported with key fundamentals; and more than 4,000 jobs were created and sustained through the grant programme.

2.4.9 The Youth Job Creation Initiative

The *Youth Job Creation Initiative* from the Enterprise Outsourcing Holding (EOH) Group is an alliance of employers, the Government and philanthropic

organisations, such as the Rockefeller Foundation and the JP Morgan Foundation. The EOH Group provides training to disadvantaged youth who are then placed in jobs with participating private and public sector employers. These employers provide guided workplace experience to trainees while the Government provides an incentive for hiring them. The initiative trains disadvantaged youth – typically first-time work seekers – over a period of 12 months through a programme that includes theoretical, class-based instruction as well as a significant workplace learning component. It is structured in line with the Government’s ‘learnership’ model and was envisioned as a multi-sector partnership from the start, in which the EOH Group would work with existing customers, and the Government would train and place youth into jobs. The involvement of these different partners has helped to make the programme a resounding success: by August 2015, the initiative had trained almost 10,000 individuals and placed more than 8,000 learners and interns into jobs.

Public and private funding needs to be directed to fund work readiness interventions that use the shortest, simplest way to ‘close the gaps’ that hinders youth and help them take advantage of these opportunities. Rather than promote endless training, youth need help in the transition from training to employment.

South Africa has been engaged in several active labour market programmes to increase youth employability by supporting training and skills development, promoting entrepreneurship, and providing employment services. However, the impact of these programmes is generally limited when they are fragmented and take place in a slow growth environment such as in South Africa. Tax incentives in South Africa have positive effects on investment and jobs, although limited when compared to the size of the challenge. Support for SMEs can also be useful.

2.5 Remaining challenges facing South Africa’s youth

As South Africa moves forward in the 21st century, there will be two critical challenges for its youth: the first is related to the technological revolution, and the second to the demographic dividend. Table 2.8 summarises the broader scenario of five industrial revolutions in terms of their sequences, content and differences. The Fourth Industrial Revolution (4IR) is currently unfolding, and it is therefore expected to significantly change the world of work and the global economy. Just like the previous industrial revolutions, the 4IR ushers in both challenges and opportunities. On the positive side, it has the potential to raise global income levels and improve the quality of life

Table 2.8: The sequence of the five industrial revolutions

First Industrial Revolution (1IR)	Second Industrial Revolution (2IR)	Third Industrial Revolution (3IR)	Fourth Industrial Revolution (4IR)	Fifth industrial Revolution (5IR)
Mechanisation	Electrification	Automation and globalisation	Digitalisation	Personalisation
Occurred in the 18 th century, mainly in Europe and North America	Occurred in the late 1800s to the start of the First World War	Occurred around 1980	Occurred at the start of the 21 st century	Occurred in the second decade of the 21 st century
Steam engines replacing horse and human power	Production of steel, electricity and combustion engines	Computers, digitalisation and the internet	Artificial Intelligence (AI), robotics and crypto	Innovation, purpose and inclusivity
Introduction of mechanical production facilities driven by water and steam power	Division of labour and mass production enabled by electricity	Automation of production through electronic and information technology (IT) systems	Robotics, AI, augmented reality and virtual reality	Deep, multi-level cooperation between people and machines

Source: Mehember (2021).

for populations around the world, bringing new technologies that will increase the efficiency and pleasure of personal lives, among other benefits. However, economists are warning that the 4IR might widen global inequality, which together with the impacts of the global COVID-19 pandemic could cause a disruption in labour markets, since many people are now working from home. The impact of the 4IR will continue to be felt as automation is used as a substitute for labour. However, according to the World Economic Forum (2016), there is a possibility that the displacement of workers by technology will result in a net increase in safe and rewarding jobs.

While the developing world is still trying to come to terms with the 4IR, there is an emerging discussion on the imminent arrival of the Fifth Industrial Revolution (5IR). The 5IR can be summarised as the combination of humans and machines in the workplace. Whereas the 3IR and 4IR could be described as being hard on humans, especially due to the displacement of workers by technology, the 5IR is projected to put human beings at the centre of the production process. Regarding technological change and the future of work, it is predicted that 41 percent of all work activities in South Africa are susceptible to automation. This is likely to be moderated by comparatively low labour costs and offset by new job creation. Despite this larger window of opportunity, the region's capacity to adapt to further job disruption is a concern.

In South Africa alone, 39 percent of core skills required across occupations changed completely in 2020. Instability often stems from the fact that many jobs in the region are becoming more intense in their use of digital technologies. The average ICT intensity of jobs in South Africa increased by 26 percent over the last decade.

In Africa, online talent platforms have the potential to create significant benefits by moving people from informal to formal jobs, increasing workforce participation and hours worked of those formerly underemployed or inactive, shortening the duration of job searches, and enabling matches that would otherwise not have occurred. By 2025, this could result in 861,000 additional jobs and a \$20 billion increase in South Africa's GDP.

It is important for the Sector Education and Training Authorities' tertiary institutions to continue

investigating which current occupations are likely to be affected by the evolving technologies and which new occupations are emerging from the 3IR, 4IR and now 5IR technologies. Skills development initiatives that respond to the emerging industries and occupations need to be put in place through public-private partnerships (PPPs) and collaboration between the private sector (industry), training providers and the public sector.

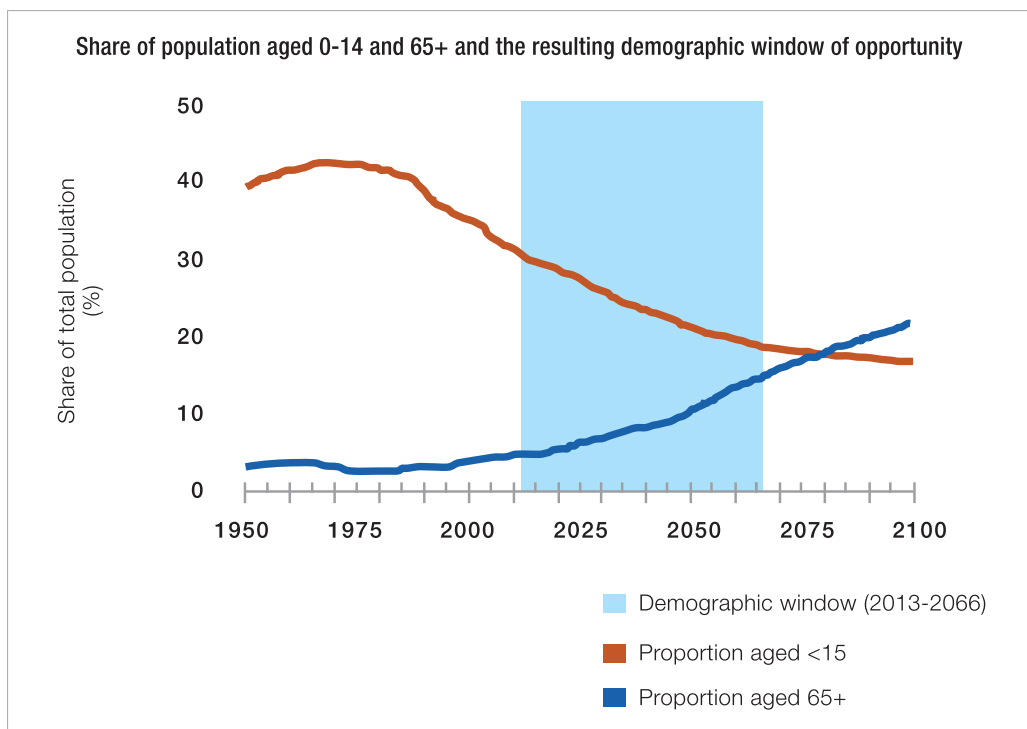
South Africa has a relatively higher capacity in the region to adapt but is also more immediately exposed to the job disruptions of the 4IR. Urgent reskilling and upskilling efforts are needed, focusing in particular on strengthening higher education and adult learning. Africa and South Africa, specifically, urgently need to make the right investment decisions to strengthen the foundations for the jobs and required skills of tomorrow.

2.6 Youth and reaping of the demographic dividend

During the colonial and the apartheid periods, all dividends were captured by white South Africans. To reap the advantage of South Africa's demographic dividend (Figure 2.9), it will be necessary to generate jobs for its increasing working-age population and ensure that potential workers are equipped with the necessary skills and instruments to match labour demand. Otherwise, the demographic transition will add further pressure to already fragile labour markets: unemployment is already high in the country.

Many youth, who will soon become the bulk of the working-age population, are currently unemployed: half of those looking for a job cannot find one. Over the next decades, the demographic transition will add millions of young workers to the labour force. To maintain the current unemployment rates to 2050, South Africa will need to create 7.1 million jobs. In addition, to bolster the employability of the millions of working-age people who have already completed their education but lack the skills to work in a sophisticated and growing global economy, South Africa will need to provide continuous and remedial education, and labour insertion programmes. If the country is to employ the entire working-age population (including people who are currently out of the labour force), the magnitude of the challenge climbs even further: by 2050, it would need 29.5 million additional jobs (*i.e.* 204 percent more than it has at present).

Figure 2.9: South Africa has entered a window of demographic opportunity



Source: World Bank (2015).

Employment is key to harnessing the demographic dividend. In the absence of new jobs and ways to match them with new workers, the demographic dividend could become a demographic liability: large cohorts of youth without work would mean a tragic loss of human and economic potential. Simulations show that, given the current joblessness, demographic change will exert a drag on the economy as the population keeps aging. Social policies in South Africa need to be inclusive and tailored to promote the human development of

younger generations. Considering that by 2050 the ratio of the working age population is estimated to peak at around 70 percent, these young workers need to be adequately prepared for jobs that the economy requires for its growth.

The preceding discussion identifies critical challenges; some existing and some emerging, all which are facing youth. In order to address them, a visionary approach is needed that would draw on past experiences, build on the present, and

Considering that **by 2050** the ratio of the working age population is estimated to peak at around **70 percent**, these young workers need to be **adequately prepared for jobs** that the economy requires for its growth.

be future-looking. As Ms Ahunna Eziakonwa, Assistant Secretary General and UNDP Regional Director for Africa, stated:

Youth should be at the heart of any development agenda. We need to invest in their potential, talent, energy and enthusiasm and create the opportunity for them to realise their dreams.

This world is changing fast, with new work opportunities, but also with risks. South Africa will have

to rise to the occasion by seizing new opportunities while minimising associated risks. This would require bold policies and strong institutions. This can be achieved by drawing lessons learned from the experiences of other countries and collaborating with them; South-South collaboration can be an effective platform to this end. The next chapter focuses on the global landscape of practices in areas of youth employment and on lessons learned for South Africa.

Regional and Global Comparisons with Lessons for South Africa

3.1 Striking similarities and the need to learn from each other

The aim of this chapter is to present snapshots of youth employment scenarios from regions neighbouring South Africa and even beyond; including the Middle East and North Africa (MENA); Latin America and the Caribbean (LAC); Asia, Eastern and Central Europe and the European Union (EU). These snapshots are intended for baseline comparative purposes, and ultimately, using them to distil key lessons that can inform the youth [un]employment challenge in South Africa. Across regions, there have been many policies, programmes and project interventions, some of which worked very well, and it will be useful to identify those that are relevant for the country. To this end, the chapter focuses on the role of the public sector and the state: the private sector creates jobs, approximately 87 percent of total employment, and the state is the main actor that sets the growth and development path alongside the corresponding strategy and policies.

This chapter also focuses on the impacts of technology on jobs and workers. This is crucially important because there are many young women and men in developing countries who will, for some time, remain unaffected by the frontline technological changes taking place but who will nevertheless need to adapt to a world being transformed by increased digitalisation and automation.

The neighbouring regions of Southern Africa share common concerns with regard to youth employment and unemployment, but each region has its own specificity. The faces of youth employment and unemployment are varied across the regions. There are, however, some universal generic traits with

regard to youth employment and unemployment, which can be quantitative or qualitative. For example, in every region, the unemployment rates among female youth are higher than among male youth. Similarly, female youth in all regions face some form of cultural constraint in the job markets. It is essential that the different regions draw on each other's varied experiences, in terms of understanding the nature of the problems and how they can be tackled. The regions can learn from each other with regard to policy interventions as well as in the implementation of strategies. Moreover, it may be useful to know what youth employment strategies have worked elsewhere, and whether or not they can be replicated and if so, whether or not they would need to be tailored to the specific country context.

3.2 Some experiences of youth [un] employment in Africa

Today's median age in sub-Saharan Africa (SSA) is 18 years, and it is expected to increase to 24 years by 2050. The United Nations estimates that the number of youth aged 15–24 will increase by about six million annually over the next decade. This youthful profile offers the potential for a demographic dividend, just as it was capitalised on in East Asia in the late 20th century. However, this is not the most likely scenario if various constraints in sub-Saharan Africa's current situation are projected into the future, because most youth in the region work in low-income and low-productivity jobs. Improving these outcomes is critical, given the region's large youth bulge and the potential development spillovers that could ensue when faced with a productive and engaged youth cohort. A number of innovative efforts are being undertaken in this respect, such as UNDP's YouthConnect (Box 3.1).

Box 3.1: YouthConnekt: An innovative approach by UNDP for African youth

YouthConnekt is a multidimensional programme by UNDP that aims at connecting youth to their role models and peers, as well as resources, technologies and skills by filling the gap between them and the opportunities to create an economically empowering environment. UNDP's partnership with the Tony Elumelu Foundation resulted in launching the initiative in 2019, which focuses on youth entrepreneurship and empowerment in Africa. The five goals of the programme are: connecting 100 million youth in Africa; creating 10 million jobs for African youth; empowering 25 million youth with skills; nurturing 1 million young leaders; closing the gender gap; and supporting 100,000 African entrepreneurs – all over the next 10 years.

The programme provides opportunities for African youth to unleash their creativity and leadership in civic, economic and political spheres aiming at a mindset change and transformation. To this end, it ensures greater access to capital and markets; skill development; a sustained investment in training; and apprenticeship and education through partnerships, in particular in science, technology, engineering and mathematics (STEM) and in more dynamic technical and vocational education and training (TVET) schemes for the industrialisation of Africa. It coordinates and nurtures collaboration between them and job opportunities.

Source: Based on UNDP (2019).

In 2019, around 10 million youth in sub-Saharan Africa were unemployed, and around 9.8 percent of the total labour force of youth aged 15–24 faced unemployment. This rate is higher than the unemployment rate of youth over 25 years of age (6.1 percent), which underlines that unemployment on the continent is affecting the younger generation. In 2017, young women were more severely affected, at a rate of 14.7 percent, compared to 12.3 percent for young men. This average continental rate disguises more serious situations in some countries. In SSA, 21 percent of its youth are NEET – i.e. for every five sub-Saharan youth, one is NEET.

The employment picture is therefore a challenging one for youth in SSA. Most youth work in low-productivity jobs, most often in agriculture, self-employment or household enterprises, with low

earnings and little security. The region's educated youth may have better jobs when they do obtain employment, but open unemployment for this group is a significant concern. For the vast majority of youth, open unemployment may be low; however, with low productivity, earnings are poor and precarious, compensated hours are limited, and benefits and access to any meaningful formal social protection are essentially non-existent.

3.3 Youth employment challenges associated with structural bottlenecks in Africa

In Africa, despite relatively strong GDP growth, structural change has been much less important; hence, there has not been a significant upgrading of the employment structure from agriculture to better jobs in services and industry. Agriculture continues to be the leading sector in employment generation despite a share that decreased from 55 percent in 2005 to 44 percent in 2015. Whereas agriculture is the leading employer for most of the African population, the same may not be true for African youth. In fact, the job structure and challenges for youth vary across SSA. Nevertheless, innovative job opportunities can be created for African youth in agribusiness. It has been estimated that the potential of agribusiness in Africa, which by 2030 could add around \$3.6 trillion to Africa's GDP with upstream and downstream value-addition, can be achieved through the agricultural sector. In South Africa, it is projected to amount to \$75 billion by 2030 and it has enormous potential for job opportunities and for reducing poverty and inequality.

In contrast, the construction sector has attracted young workers much more than adults. In Nigeria, for example, from 2010 to 2020, it tripled overall and increased five-fold for youth in particular, although it remains relatively small in terms of overall employment. In Zambia, where total construction employment doubled; young workers account for almost half of the new jobs. Youth employment in trade, hotel and restaurants expanded by over 50 percent in the United Republic of Tanzania and by 14.3 percent in South Africa. Younger workers have also been advancing significantly faster in transport and storage, information and communications, financial intermediation, real estate and business activities. Construction, trade, hotels and restaurants are increasingly absorbing younger and older workers

alike, with promising trends for young women. Youth are also increasingly gaining employment in health-related services, even surpassing adult employment growth.

Traditional conceptions of 'employment' covering wage and salary work, particularly in the formal sector, capture only a small percentage of young African workers. Most work in agriculture, self-employment or micro-household enterprises. Most have relatively little education and experience under-employment (e.g. subsistence wages, no benefits or protection, low productivity) rather than open unemployment.

3.3.1 The transition from school to work

The amount of schooling generally determines the sector in which youth are employed: most youth who have not completed primary education are employed in agriculture; those who have completed primary or lower-secondary schooling are likely to be employed in household enterprises; and the better educated, in the wage sector. A school-to-work transition survey of youth aged 15–29 from 11 African countries shows that for non-working youth, unemployment is the consequence of a lack of jobs. The survey also shows a lack of preparation for the transition from education to employment. For 30 percent of unemployed respondents, the requirements for jobs were either too high, or they did not have enough work experience, and 13 percent said that they did not know how or where to look for a job.

3.3.2 The role of apprenticeship in preparing youth for employment

Exposure to the workplace increases the employment prospects of young apprentices. Lessons learned in Europe show the importance of counselling services during the apprenticeship period. Following a clearly defined and structured period of training and the successful completion of a formal assessment of the apprentices' performance, they can obtain a recognised qualification and certificate, which will help in their transition to other jobs; the United Republic of Tanzania is a good example (Box 3.2). It is estimated that informal apprenticeships involve approximately 50–90 percent of youth in The Gambia, Ghana, Madagascar, Malawi, Mali, Senegal, the United Republic of Tanzania and Zambia. Generally, in SSA, informality is not necessarily a result of cumbersome regulations and mistrust in public institutions and taxation, but rather,

it is driven by significant economic pressure on job creation, given that the population aged 15–24 is expected to double over time. The establishment of practical, short-term training courses run by public or private institutions to accompany work-based training, as well as specific training of craftspeople to guarantee a minimum apprenticeship quality have been successful in Ghana, Kenya and the United Republic of Tanzania.

Box 3.2: The Apprenticeship Programme in the United Republic of Tanzania

The apprenticeship programme in the United Republic of Tanzania is championed by the Association of Tanzania Employers through the members of the Tourism Conference of Tanzania and the Hotel Association of Tanzania. It received support from the Government's implementing partners, which include the National College of Tourism (NCT). Around 40 percent of the training is conducted by the College and the remaining 60 percent by the hotels. The hotels provide all practical and hands-on training in the occupations, and the apprentices acquire the required attitude, culture and dynamics. Hotels pay apprentices an allowance to the trainees during their company training while trainees pay their college fees.

The Vocational Education and Training Authority (VETA) in the United Republic of Tanzania, in cooperation with the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ), introduced the Integrated Training and Entrepreneurship Promotion (INTEP) programme. The Programme aims to improve informal apprenticeship by upgrading the technical skills and training capacity of craft persons.

Source: Rausch (2019).

West African countries, such as Benin, Mali, Senegal and Togo, are bridging the gap between formal and informal apprenticeship. They are restructuring their TVET systems to incorporate apprenticeships, including certification mechanisms. They are also developing dual apprenticeship systems, where the craft enterprises that take on apprentices share responsibility for training. In parallel, some regulatory instruments have been developed to meet policy objectives and the specific arrangements for apprenticeship, such as the types of contracts and the rules governing vocational qualifications. In Latin America, where there is a high rate of informality in the labour market, some have adopted measures, including contractual arrangements, to support

a transition from informal to formal employment relationships.

3.3.3 New technology and the future of work in Africa

Currently, according to an analysis in partnership with LinkedIn, the trending professions on the continent include the creative industries, food technologists, 3D designers, data centre workers, as well as care, education and health workers. In the longer term, there is strong job growth potential in hard and soft infrastructure, green jobs and the ICT sector, and through new work formats. While the 4IR may be disruptive to many occupations, it is also projected to create a wide range of new jobs (Box 3.3). Kenya, just like South Africa, has a slightly higher capacity to adapt, but is also more immediately exposed to the job disruptions of the 4IR. Urgent reskilling and upskilling efforts are therefore needed, focusing in particular on strengthening higher education and adult learning. The region urgently needs to make the right investment decisions today to strengthen the continent's foundations for the jobs and skills of tomorrow.

Box 3.3: The Fourth Industrial Revolution (4IR): opportunities for Africa

The Fourth Industrial Revolution (4IR) is projected to create jobs in areas such as science, technology, engineering and mathematics (STEM), data analysis and computer science. For sub-Saharan Africa, the greatest long-term benefits of these jobs are likely to be the promotion of home-grown African digital creators, designers and makers, and not just digital deliverers.

Regardless of sector or occupation, new work formats are offering individuals and entrepreneurs new opportunities. Online platform work is on the rise globally, including in sub-Saharan Africa. For example, the continent currently has 56 e-ridesharing services, most of which are homegrown apps that have been launched over the last three years. In Africa, online talent platforms have the potential to create significant benefits by moving people from informal to formal jobs, increasing workforce participation and hours worked of those formerly underemployed or inactive, shortening the duration of job searches, and enabling matches that would otherwise not have occurred. For example, by 2025, it is expected that, in Kenya, there will be 536,000 additional full-time equivalent jobs and a US\$3 billion increase in GDP, and in Nigeria, 1.9 million jobs and a US\$20 billion increase in GDP. As elsewhere, African companies will increasingly need to learn to manage a distributed, virtual workforce, integrate virtual freelance workers, and mitigate the challenges of engaging in online work.

Source: Rausch (2019).

For example, the Republic of Korea has focused on reforming its education system (Box 3.4). The labour market will partly depend on where jobs are available. An examination of changes in sectoral employment over the last decade provides insights into the sectors that may absorb youth aged 15–29 in the near future. These shifts in sectoral employment are influenced by a variety of factors, including macroeconomic and sectoral policies, skills and human capabilities policies, and access to markets.

Box 3.4: Reforming the educational system for the Fourth Industrial Revolution: example of the Republic of Korea

Countries that have been identified as leaders in the Fourth Industrial Revolution (4IR) have approached the reform of their educational systems in various ways: Japan has concentrated on revitalising its production structure; China has focused on information technology; the United States of America has prioritised robotics; and Republic of Korea has focused on its educational system.

Several issues have emerged in recent discourse on the 4IR in Republic of Korea, suggesting that fundamental changes in the educational system, particularly at the higher education level, are needed to address its challenges. The reforms also take into account the periods of disruptions and unemployment associated with the 4IR. Republic of Korea has been exploring the challenges of its higher education sector in the light of likely shifts in knowledge production due to this revolution.

The Republic of Korea has multiple challenges in terms of its educational system, particularly at the higher education level, and will have to upgrade its knowledge creation and skill formation in order to adapt. The country began this process at the pre-primary level, focusing on digital literacy, better motor functioning, social skills, etc. Later on, these skills were complemented with problem-solving skills, collaboration and coordination, and an emphasis on science and computation, etc. The curriculum focuses on *project-based learning* in classrooms. There are *technical innovation clusters* in schools for producing research and strengthening cooperation and competition among schools. There is also a teacher incentive system for project-based learning.

At the university level, the focus is to transform the universities into *innovative ecosystem* centres for knowledge. Universities are now creating a horizontally structured community. The management structure of academic and research institutions are being adapted to meet the challenges of the 4IR, and a national educational reform committee has been set up.

Source: Jsun Jung (2019).

FinTech firms can take advantage of sizeable untapped customer bases in developing and emerging countries. However, these markets also face significant obstacles, including limited cloud infrastructure and lack of connectivity among users who largely operate in informal settings. The Nigerian *FinTech* firm Money-wave is creating payment interfaces to facilitate multiple transactions in Africa's fragmented payment systems, allowing money transfers between MPESA accounts and bank accounts. One of the major infrastructural constraints with regard to ICT connectivity is the availability of basic electricity. Since only 48 percent of the sub-Saharan African population has access to electricity, this is an impediment to leveraging the benefits of the 4IR.

3.4 Insights from youth employment in Latin America and the Caribbean

The average youth unemployment rate in Latin America and the Caribbean (LAC) was 18 percent in 2017, 17.9 percent in 2018, and 17.8 percent in 2019. Almost 9.5 million youth aged 15–24 who wished to enter the labour market in 2019 did not get the opportunity to do so. The unemployment rate of youth is double that of the general unemployment rate and triple that of the unemployment rate of adults (25 and over). The lack of employment, or of decent employment, can lead to situations of frustration or discouragement, which impacts families and communities, hence affecting social stability. It can also have an impact on governance.

Around one-fifth of youth in Latin America are NEET (nearly 30 million) and therefore not positioned in either one of the main channels of social and economic inclusion, i.e. through the education system or labour markets. In LAC, the NEET phenomenon is strongly linked to socio-economic background: 83 percent of NEET women and 76 percent of NEET men come from poor or vulnerable households. In South Africa, in the third quarter of 2021, about 34 percent, one in three people, were NEET.

In vulnerable households, more than half of youth aged 29 are either working in the informal sector or NEET. Lack of good employment opportunities is one of the most significant factors hindering the inclusion of youth in society. Latin American youth also have fewer and worse jobs than adults. According to estimates, 60 percent of youth only find

employment in conditions of informality, which implies little stability, the lack of a contractual framework, low salaries, as well as the lack of rights and social protection. In short, their jobs are precarious.

3.4.1 The transition from school to work

The youth paths into the labour market in the LAC region are generally much longer than in developed countries, which is heavily shaped by the role of women, often still centred on caregiving and household activities. This long school-to-work transition explains the poor labour market outcomes experienced by some youth in LAC, especially those from poor and vulnerable households. The average duration for the LAC region school-to-work transition was estimated at 6 years, compared to an average of 2.7 years for European Union countries.

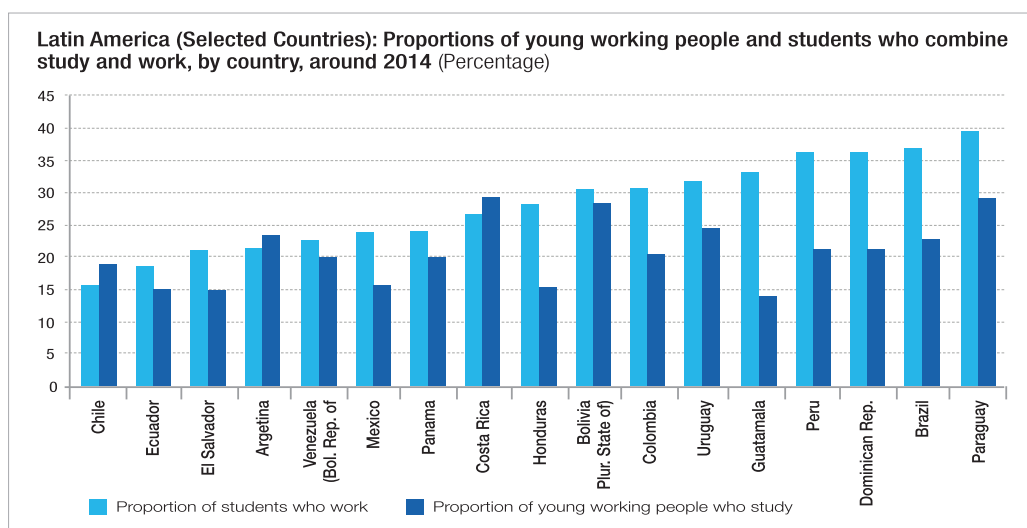
3.4.2 Education and skills

Education and skills are widely recognised as key elements to support youth's school-to-work transition and inclusive development. Education is central to improve LAC's current low productivity and to find new drivers of long-term growth, reduce poverty, bridge inequalities, and build social stability and cohesion. Indeed, education and skills are areas of investment that can support productivity and inclusiveness at the same time, and reinforce synergies between them. Some Latin American youth combine work and study (Figure 3.1).

The combination of work and study has been a long tradition in Asia and Latin America. This has been highly beneficial to poor Latin American youth and has enabled them to prosper in life. The government, employers and educational institutions collaborate in making work-study programmes successful.

A few countries have started implementing National Qualifications Frameworks to align TVET education with general secondary and tertiary education. National Qualifications Frameworks, which classify qualifications by level based on learning outcomes, standardise qualifications in order to facilitate the evaluation and comparison of skills across systems. Many countries have implemented these frameworks, for example, Chile Valora and the Ministry of Education in Chile, the Ministry of Education in the Dominican Republic, and the Ministry of Education in Colombia. TVET in LAC rarely train youth in mid- and high-level trade and in technical, professional and management skills.

Figure 3.1: Percentage of Latin American youth who combine study and work, 2014



Source: Economic Commission for Latin America and the Caribbean (ECLAC) and International Labour Organisation (ILO), on the basis of special tabulations of household survey data from the countries.

3.4.3 The transition to the formal economy

In developing countries, low productivity jobs in the informal economy are the main provider of work and livelihoods for youth. The transition to the formal economy has become a policy target for countries such as Brazil, Colombia, Costa Rica, Mexico, Argentina and Peru. The extensive attention to formalisation now paid by governments is opening up opportunities for further mainstreaming. Evidence from LAC indicates that the greatest reduction in informality rates is observed when the interventions are comprehensive. Enhanced enforcement of legislation relating to labour contracts can be used in conjunction with other complementary measures (e.g. skill formation, training, mentoring) to support the transition from informal to formal employment.

3.4.4 Youth skills and the role of entrepreneurship

Youth stand at the crossroads, embodying the region's promise and perils. Their qualities such as creative thinking, management skills, goal-oriented objectives and risk-taking are present among young Latin American entrepreneurs and those in industrialised economies. Youth entrepreneurship is a vehicle for improving employability and social mobility in LAC. Fostering entrepreneurship is fundamental for innovation, which could serve as a driver for much-needed productive transformation and contribute to overcoming

the middle-income trap. With fewer resources, skills and experience, however, they face higher barriers for business creation in accessing finance, acquiring entrepreneurial skills, integrating business networks, creating new markets and overcoming regulatory barriers. Youth entrepreneurship in LAC is characterised by the co-existence of a few high-growth and many subsistence entrepreneurs. Young Latin American entrepreneurs are more prone to be own-account workers and less educated, and from more disadvantaged socio-economic backgrounds. Indeed, the share of subsistence entrepreneurship among young workers in Latin American is high, at 18 percent.

3.3.5 Skills-enhancing programmes and training interventions

Skills-enhancing programmes for youth that combine classroom teaching, workplace learning and job search services help young Latin Americans transition to employment. Training interventions for youth in the region, such as *Jovenes con más y mejor trabajo* in Argentina, *ProJovem* in Brazil, *Jovenes en Acción* in Colombia, and *ProJoven* in Peru, prove that comprehensive interventions have positive results on youth employability, earnings, and especially, job quality. Moreover, the interaction between design components and programme implementation is important for their effectiveness.

The Jovenes programmes across LAC targeted urban youth considered at-risk due to their low likelihood of insertion into the formal labour market: vulnerable or disadvantaged young workers. *Juventud y Empleo*, a youth employment programme implemented in the Dominican Republic since 2001, provides more opportunities to disadvantaged youth. Vulnerable workers also include first-time job seekers, those living in poor households, the low-skilled unemployed, and the underemployed. In practice, young school drop-outs are unlikely to return to formal education.

Entrepreneurship programmes offering youth business and managerial training as well as mentoring and counselling services show the best results in LAC. Impact evaluations also show that financial support mechanisms have more limited success. Moreover, publicly funded programmes in the region are effective, and outcomes are independent of the public or private provision of services. A comprehensive approach to entrepreneurship support, encompassing training, financing and mentoring, has produced more effective results. Strengthening these components and giving them enough flexibility during implementation can considerably improve

programme effectiveness and deliver long-term effects.

Although heterogeneous, the entrepreneurship programmes' impacts were more favourable for youth, which may help them move out of the NEET status. The Inter-American Development Bank (IADB) Multilateral Investment Fund launched in 2012 has been a valuable initiative that can be considered a replicable model for youth employment creation worldwide (Box 3.5).

3.3.6 Institutional support for start-ups

Many countries in the LAC region have consolidated their institutional support for start-ups, and new actors have entered the scene. Together with national governments and academia, the role of local governments and cities in enhancing entrepreneurship ecosystems is notable, as shown by Ruta N in Medellín and the regional programmes *Startup Chile* in Valparaíso and Concepción. In addition, private sector participation has increased, not only from the perspective of financing and investment, but also through new actors supporting the seeding of innovative entrepreneurship activities. Business associations are introducing new forms of

Box 3.5: The Inter-American Bank Fund's New Employment Opportunities initiative: new employment opportunities

The Inter-American Development Bank (IADB) Multilateral Investment Fund (2018) New Employment Opportunities (NEO) multi-stakeholder initiative aims to close the gap between youth skills and employers' demand for a qualified workforce in Latin America and the Caribbean (LAC). The lives of around 380,000 youth were transformed by opportunities provided by this initiative. In a region plagued by precarious rates of youth unemployment, NEO has succeeded in closing the skills gap of vulnerable youth and the demand for qualified personnel by companies in LAC.

NEO was launched in 2012 as a pioneering initiative in LAC, in which regional actors partnered to tackle the old problem of youth employability through an innovative equation of pooling resources, knowledge and skills in order to ensure youth self-fulfilment through dignified employment. With an investment of over US\$137 million by NEO partners and the support of Australian Aid, Catholic Relief Services, Pepsi Foundation and the United States Agency for International Development (USAID), NEO has made great strides in closing the gap between youth skills and the needs of employers in 12 countries in the LAC region over the past six years.

NEO alliances are strengthened by the collective relationships of 140 partners in the public, private and civil society sectors. NEO has mobilised more than 5,500 businesses to offer internships and jobs for youth, and has involved more than 230 training and employment institutions. Working in alliances streamlines processes, frees resources, generates innovation, and improves the ability to respond to new challenges.

The lessons learned from the NEO initiative are that programmes should match the needs of youth and that life skills matter. Training should be aligned with market needs, including the strengths, weaknesses and interests of job placement services. All of these are relevant to the South African context.

Source: Rausch (2019).

collaboration and exchange for start-up support. Some good examples include the Campinas' Start-ups Association in Brazil, several entrepreneurial hubs (*parques de emprendimiento*) in Colombia, and the *Ibero-American Centre of Entrepreneurship and Innovation* in Costa Rica. Business-sharing practices and open innovation for large firms are also becoming increasingly common in the region.

Despite recent improvements, barriers to youth entrepreneurship in LAC are, on average, higher than in other emerging economies and in the Organisation for Economic Co-operation and Development (OECD). Both subsistence and high-growth enterprises of young entrepreneurs face even more challenges than their adult counterparts in accessing financing instruments, building capacity, developing business networks and an entrepreneurial culture, accessing new markets, and overcoming regulatory barriers. The LAC countries have tried to tackle these dimensions and tailor their policies to young entrepreneurs. High-growth entrepreneurs can access financing tools in the early stages, including: asset-based finance (i.e. factoring); alternative debt (i.e. crowd funding); hybrid financing instruments; and equity finance. In Latin American start-ups, financing support is moving forward rapidly in the early stages of entrepreneurship, such as the *Servicio de Cooperación Técnica* (SERCOTEC) in Chile, and *Red Emprender* in Uruguay. In addition to the instruments, youth entrepreneurship programmes with a financial education component have proven successful.

However, the integration of young Latin American entrepreneurs into international global value chains is still limited, and administrative burdens create extra hurdles. They are less integrated into global production networks than their OECD counterparts. The share of young, early-stage entrepreneurs reporting at least one-quarter of revenues from international clients in the region (10 percent) is half that of the OECD average (21 percent).

3.5 Youth employment in Asia and the Pacific region

Asia and the Pacific region has both the world's largest proportion of workers in the working-age population and the world's lowest unemployment rate. In 2017, nearly three in five (59.7 percent) people in the region were working, compared to 58.7 percent globally.

The youth unemployment rate was 10.4 percent, with no change from 2015. While the composition of unemployment has become less youthful in recent years, still 35 percent of the region's unemployed were youth aged 15–24, even though they made up only 20 percent of the working-age population. By sub-region, in 2019, youth unemployment rates were 10.1 percent in Eastern Asia (8.6 million people), 10.2 percent in South-Eastern Asia and the Pacific (5.6 million people) and 9.9 percent in Southern Asia (11.6 million people).

In many emerging economies, unemployment is particularly pronounced among persons with secondary education, indicating a hollowing out of middle-skill jobs in these countries. But unemployment among tertiary graduates also remains a serious problem in a number of countries.

Since approximately 11.4 percent of the youth population in Asia and the Pacific region are NEET, they are unlikely to be employed in the future. This is a matter of serious concern since it represents a decline in the driver of future growth. Due to a widespread underemployment of youth, millions work in the informal economy and in vulnerable forms of employment as own-account workers or contributing family members. These jobs come with low pay, poor working conditions and limited access, if any, to social security. Millions of young workers and their families thus remain trapped in poverty.

3.5.1 Education, training, skills, career guidance and the transition from school to work

Enrolment in education is rising, particularly at the secondary and tertiary levels. However, skills shortfalls (particularly technical and vocational) are prevalent, resulting in underemployment and joblessness. The problem includes occupational skills mismatches, where the skills of the worker or applicant do not match an occupation. Work-based training programmes such as apprenticeships and internships can help address these challenges and have been on the rise in the region. A number of countries such as the Republic of Korea, Singapore and Malaysia have set out to improve policies and systems to link TVET with industry requirements for skilled workers, as well as to make skills standards and training curricula more efficient and relevant. National qualifications frameworks, skills standards and skills recognition systems are already in place in the Republic of Korea and Malaysia, and are in a

planning stage in other countries. In addition, work-based programmes such as apprenticeships and internships have proved crucial in assisting with a smooth transition from school to work, and several countries in Asia such as Pakistan, the Philippines and the Republic of Korea have taken steps to increase their availability (Box 3.6).

Box 3.6: The work-learning dual system in the Republic of Korea

The *work-learning dual system*, which has been enforced since 2014, is the result of taking some elements of the apprenticeship system implemented in countries such as Germany and Switzerland, and apply them in a manner suitable to the Korean society. In this system, companies hire youth seeking employment and provide them with systematic on-site education and training in the skills they require. Following the completion of their education and training, their capabilities are evaluated by the government or relevant industry organisations, and their skills are recognised through certificates and similar award systems.

Work-based learning refers to a systematic form of learning conducted in the workplace to secure both hard skills (i.e. job-related skills and abilities required at the workplace) and soft skills required for corporate life such as in companies (e.g. related character and behaviour) so that the learners become talented workers. Companies employ students or job seekers while providing them with education and training, in collaboration with educational institutes such as schools. The system is field-based, and teaching generally takes place on site, with schools and other education and training institutes providing complementary, theoretical education. Furthermore, in accordance with the National Competency Standards-based education and training programme, on-site company instructors teach the students using learning tools that are actually used on the job. The system is expected to solve the mismatch in the labour market by providing early employment for job seekers and reducing re-education expenses for newly hired employees for companies.

The private sector has played a key role in many initiatives, combining vocational education in classrooms with training in enterprises, as well as in delivering training programmes, and in India, spearheading innovative practices.

Career guidance and counselling programmes to develop youth competencies in self-knowledge, educational and occupational exploration, and career planning are also increasingly evident. Most recently, Viet Nam has piloted career guidance tools for rural secondary schools. Career and vocational counselling provided by public employment services often targets specific groups of youth who face particular difficulties in the labour market. In economies with expanding industrial and service sectors, job search assistance and placement support can improve employment and earnings among youth at a relatively low cost. In high-income economies, job search support has been increasingly integrated with a range of complementary services such as profiling to access opportunities, counselling and training. The success of these policies, however, greatly depends on the technical and institutional capacity of public employment services.

In Japan, policies have been implemented to address labour demand, improve the school-to-work transition through active labour market policies, increase the relevance of TVET, and improve career guidance. The Public Employment Service plays an important role in the provision of career guidance, in close cooperation with educational institutions. In addition, strategies have targeted enterprises and employers by encouraging changes in recruitment methods, providing skills training and career development opportunities for young workers, and improving working conditions. In general, provisions target young graduates, the unemployed and NEETs.

3.5.2 Youth entrepreneurship and self-employment

Self-employment and entrepreneurship policies for youth must be shaped both to promote an entrepreneurship culture and to combat the inherent difficulties of starting up a business at an early age, including lack of experience and financial resources. Accordingly, the promotion of youth self-employment should include entrepreneurship education, training for out-of-school youth on business start-ups, mentoring and other business support measures that help foster entrepreneurial activity while improving employability. These policies are being developed in China, Republic of Korea and Viet Nam.

Common barriers faced by young entrepreneurs are limited access to capital and lack of business

and management skills and of mentorship support. Policies to promote self-employment and entrepreneurship for youth are more common in low-income countries. The most common measure is the provision of funding mechanisms such as microfinancing, grants, subsidies and soft loans. A few funding schemes are open to all youth who start a business (e.g. in Sri Lanka), although most target vulnerable youth, such as school drop-outs, unemployed youth, and youth with disabilities (e.g. in Vanuatu, Mongolia and Viet Nam). Some programmes support youth cooperatives; others target youth in specific regions or sectors, for instance, in the Philippines and Republic of Korea.

Embedding entrepreneurship curricula in schools and TVET institutions has also proven to be an effective way of fostering an entrepreneurial culture and promoting self-employment as a potential career option for youth. In Singapore, the Government is encouraging the establishment of a comprehensive, structured entrepreneurship learning programme by providing financial support to schools from primary level all the way up to polytechnics, with grant funding through the Young Entrepreneurs Scheme for Schools.

3.5.3 Policy issues to spur youth employment

Employment and economic policies focusing on job creation and conditions for the full and productive employment of youth mainly comprise youth employment strategies and the integration of youth employment plans in national development strategies. The sector policies that focus on promoting youth employment have also been common in the Asia and the Pacific region. A number of South and South-East Asian economies have targeted agriculture. Malaysia, Nepal, the Philippines, Sri Lanka and Vanuatu have launched policy initiatives in this area. The Government of Cambodia, for example, has sought to improve the business environment for the garment industry, aiming to drive export growth and job creation for young women.

Fiscal measures to boost youth employment have been implemented in a number of countries. For example, China introduced fiscal measures to support the employment of graduates. Businesses with a certain proportion of newly recruited

unemployed graduates can apply for a loan and receive a fiscal discount. There are also favourable tax reductions for new graduates engaged in self-employment for the first three years. Similarly, the Republic of Korea plans to revise its tax regulations for new start-ups in its *Comprehensive Measures for Youth Employment policy*. The fiscal measures undertaken by China to address the issue of employment of graduates is similar to that of the *Employment Tax Incentive of South Africa* (Box 3.7).

Box 3.7: The Employment Tax Incentive of South Africa

The Employment Tax Incentive was initiated to address the high youth unemployment in South Africa. At times, it is referred to as 'the youth tax incentive', and at times as 'the youth wage subsidy'. First coming into effect in 2014, it was extended in 2018 for another 10 years. The original incentive offered to reduce the tax bill of firms that employed new workers aged 18–29 who earned below ZAR6,000 per month (US\$400). The idea was that by reducing the effective cost of hiring young workers by subsidising up to 50 percent of their salary, lead firms would create more jobs for this group. In 2018, it became applicable to all new employees of firms operating in *special economic zones*, regardless of age, and to date, there are 11 such zones.

The adoption and implementation of the policy has been cited as a triumph of evidence in public policy formulation and as an effective approach to reducing unemployment among youth. The evidence on both fronts is mixed.

Source: Muller (2021).

Skills mismatches, particularly due to neglect of rural areas with respect to educational policies, are also directly correlated to rural-to-urban as well as to region-wide patterns of migration in search of gainful employment. In the Republic of Korea, there are few agricultural degrees in the education system. However, increasingly, universities, including the Seoul National University, are offering Agricultural Economics and Rural Development programmes. National qualifications frameworks, skills standards and skills recognition systems are already in place in some countries and are at the planning stage in others. Policy developments promoting and

protecting the rights of youth have been modest compared to those regarding employability, employment and other such measures. Moreover, policies relevant to the work of young persons do not always conform to international labour standards. The voices of young working women and men still find limited representation in many countries where legal frameworks restrict freedom of association and genuine collective bargaining.

3.6 Employment experiences in the Middle East and Northern Africa

Arab youth are the largest demographic group in the Middle East and North Africa (MENA) region, where 65 percent of the population is under 30 years of age. According to a February 2019 report by the Brookings Doha Centre, the youth unemployment rates in the MENA region have been the highest globally for over 25 years, reaching 30 percent in 2017. But youth employment in the region also has a gendered dimension. While remarkable achievements by young women in educational attainment over the past five decades have not translated into comparable increases in labour force participation. In 2017, for instance only 15 percent of young women in the MENA region were active in the labour force. Furthermore, unemployment rates among them are 80 percent higher than those among young men. Young workers' migration is also high in the MENA region (Box 3.8).

Box 3.8: Youth labour migration

In the absence of decent employment opportunities, many youth in the Middle East and North Africa (MENA) region have chosen to leave their communities in search of work. This is particularly evident in rural areas, where youth are leaving to cities in search of better opportunities. However, rural-urban migration has not resolved the issue; youth unemployment rates are actually higher in urban areas in all MENA countries with available data. Large numbers of youth are also leaving the region altogether. Between 2000 and 2015, net migration from MENA countries (excluding Gulf countries) was estimated at 8.4 million, among the highest population shares in the world. Migration within the region is high, mainly involving youth from labour-abundant countries seeking economic opportunities in the Gulf, or refugee populations fleeing conflict.

Over the past decade, youth unemployment in the MENA region has risen due to a series of crises, including: the 2008 financial crisis; the 2011 uprisings; armed conflict; and the 2014 drop in oil prices which affected remittances and migration to the Gulf. Structural factors continue to be the main reason behind the region's high youth unemployment rates. On the supply side are: the demographic wave that increased labour supply pressures across the region in the early 1990s and 2000s; a weak educational system that did not adequately prepare youth for the world of work; a lack of labour market information systems and career guidance resources for job seekers; and a mismatch between the expectations of educated job seekers and the wages and prestige of available jobs. Young women in the region faced an additional set of factors that contributed to their economic exclusion, including discrimination and conservative social norms. In terms of levels of completed education, on average, 44.9 percent of the youth population remain educated only at the primary level or below; 27.4 percent, at the secondary level, and 18.8 percent at the tertiary level. In all MENA countries surveyed, the percentage of young women with university degrees exceeds the percentage of men with university degrees, most notably in Jordan, Lebanon and Tunisia. Young men, in contrast, are more likely to follow vocational training.

3.6.1 Duration of youth unemployment in the MENA countries

In the MENA countries, youth unemployment is not simply a problem of volume, but also one of duration. In Egypt, nearly two-thirds (66 percent) of unemployed youth were looking for a job for one year or longer. Even in Lebanon, where the incidence of long-term unemployment was lowest, nearly half (46.5 percent) of unemployed youth had been unemployed for longer than one year (25.3 percent for longer than two years). A contributing factor is that youth are unwilling to accept any available job. Among the five countries, the average share of youth underemployment was 38.4 percent. In all countries, the female labour underutilisation rates are much higher than those of their male counterparts, a situation driven by the significantly larger shares of young women in unemployment and in the category of inactive non-students.

3.6.2 The preponderance of informal employment

Informal employment is the standard condition among youth in the MENA region. More than three in four young workers in the region work informally, either in the informal sector, or in an informal job in the formal sector. Youth in the region have untenable expectations of attaining work in the public sector. Relatively high wages, benefits and job security in the public sector have continued to attract youth and encourage job queuing for increasingly scarce positions. Moreover, over-regulation of the formal private sector has hampered its ability to create decent jobs, and inflexible labour laws have supported workers at the expense of new entrants and stifled job creation.

The limited number of opportunities in the formal sector has led to the expansion of informal sector jobs, which generally offer fewer benefits or social protections. Furthermore, firms that operate in the informal sector are less able to grow and create new jobs because this would place pressure on them to formalise their operations. Youth employment rates in the informal sector are as high as 80 percent in Palestine, Egypt and Tunisia. Faced with a lack of decent job opportunities, some youth turn to entrepreneurship and self-employment. Yet, at 9.3 percent, the average share of MENA youth engaged in early-stage entrepreneurial activity in countries with available data is lower than the world average. One major barrier for youth entrepreneurs is a lack of access to finance. The average ranking of Arab countries in terms of access to credit was 130 out of 190 economies, with youth especially having limited credit histories and lacking the required collateral.

3.6.3 Youth employment programmes in the MENA countries

A review of youth employment programmes in the MENA countries found that most focused only on technical skills training, followed by soft skills training. Entrepreneurship training, employment services and other youth employment programming combined made up less than 10 percent of the programmes in the inventory. There are many promising small-scale youth programmes and policy alternatives in the region that are proving to be successful and have the potential for replication and scaling up. *Know About Business* (KAB), an entrepreneurship education programme developed by ILO, increased knowledge of busi-

ness concepts and interest in starting a business among participants. Indeed, a great deal of research has been carried out in order to identify policy and programme solutions that work. There is evidence linking improvements in the business climate to job creation, including enhanced access to finance, better business regulation and reduced corruption. In terms of youth employment interventions, a recent review of evidence from impact evaluations identified skills training and entrepreneurship promotion as having a positive effect on employment and earnings. ILO's *What Works in Youth Employment* programme notes that the country context and design features matter. Skills training should be provided in consultation with the private sector to identify the relevant skills gaps and should ideally be combined with on-the-job training. In all cases, participants must be vetted to ensure that they have the necessary prerequisites to benefit from the interventions.

Countries fell short in ensuring that youth employment policies and programmes were being implemented effectively, including in introducing effective feedback mechanisms that would prompt course corrections when found not to be relevant or effective. While each country introduced a mix of policies and programmes that addressed its own unique circumstances, the inability to implement them effectively and learn from mistakes has been a common failing across the region. Three particular impediments to successful implementation stand out across the region:

- the political economy, especially as it relates to job creation;
- weak implementation mechanisms and coordination among development actors;
- insufficient use of evidence in designing and implementing policies and programmes.

The MENA governments have no shortage of business development strategies. The problem remains in implementing them successfully and overcoming deep-rooted interests. One of the main issues is cronyism whereby over-regulation, for instance, allows companies with ties to regimes to navigate the system and gain an advantage. Other issues include petty corruption and abuse of bureaucratic authority. Although most MENA governments have created programmes to support youth-led enterprises, these programmes have an

embedded interest in limiting the creation of truly dynamic firms that can catalyse economic growth and job creation.

3.7 Youth employment experiences in Eastern Europe and Central Asia

According to a 2015 ILO study carried out for nine Eastern Europe and Central Asia (EECA) countries, youth unemployment ranged from 14.3 percent in Azerbaijan to as high as 37.2 percent in Armenia. Most Central Asian countries are struggling with double-digit youth unemployment, but labour market pressures have been partially alleviated by outward migration, mostly to the Russian Federation. Migrants are, however, largely engaged in seasonal and low-wage activities. In eight out of the nine countries considered, young women were more exposed to unemployment than young men.

In 2012, in the Russian Federation, unemployment among all youth was 12 percent. In 2013, in Central Asia, it ranged from 8 percent in Kazakhstan to 12–21 percent in Kyrgyzstan and as high as 41 percent in Armenia (2013). In all of these countries, the share of NEETs is higher among young women. Special attention should thus have been devoted to NEETs as well as to young informal workers to help them upgrade their knowledge and skills, overcome barriers to formal employment, and gain productive employment. There is also a need to ensure affordable childcare and appropriate assistance to women who are still on, or returning from, maternity leave (refresher training and other suitable measures) in order to stimulate women's employment.

3.7.1 The challenge of low quality youth jobs in EECA

In addition to the insufficient number of jobs for youth, their quality is often poor. Youth are over-represented in low productive and badly remunerated jobs in agriculture, retail trade, hotels and restaurants, where their prospects for career advancement are usually gloomy despite having a higher level of education than the older generations. Youth are also more often hired as informal workers or temporary workers, and thus less protected or not protected against the risks of income losses as a result of occupational injuries or diseases, sickness, invalidity, maternity or unemployment. Circumstantial evidence shows

that many youth work under hazardous conditions. Without committed and systematic effort in support of youth employment from governments in close cooperation with employers, trade unions, families of youth and other relevant actors, the situation can be aggravated in the future as a consequence of demographic trends; notably, the progressive ageing of populations. The large informal sector employs over 30 percent of youth, but on average, the rate is estimated to approach 50 percent.

The gradual technological upgrade of the region's industrial sector is exposing the mismatch between the current educational system and skill requirements by companies. The lack of domestic opportunities is causing outward migration of the younger generation, largely to the European Union, affecting dependency ratios and the sustainability of pension systems. Accounting for over 30 percent of total employment, informality is less widespread in Eastern Europe than in Central and Western Asia, but is still high compared to the rest of Europe.

3.7.2 Inadequate technical, vocational education and training

In the EECA region, youth lack TVET and information to help them find jobs, and there is also a skills mismatch. There is an urgent need to strengthen the national TVET systems in order to increase the prestige of professional education and training in the eyes of youth and the public in general to attract more and better educated youth. For those left behind, there are second chance education and training programmes that aim to address the root causes of their failure and offer them a motivating environment for learning. TVET is also low quality due to, *inter alia*, the lack of a close link between education and training, and the world of work.

All countries in the EECA region provide short-term vocational training and re-training programmes in occupations that are in demand in the labour market. Youth's interest in undergoing training can also be stimulated by the provision of training benefits. In the Russian Federation, vocational training and re-training are organised for non-prominent employers and, in some regions, for prominent employers who guarantee a job to the trainee before the training starts. The overall placement rate after training is currently 80 percent.

Vocational guidance for pupils as well as their parents is needed as early as possible, at the latest in the last grades of primary and secondary schools. Vocational guidance should further be offered to those who leave school without professional skills and to unemployed youth with low skills.

3.7.3 Placing a high priority on youth employment

The EECA countries pay strong attention to youth employment. Youth employment promotion is embedded in national employment acts, and in laws and programmes on state youth policy (adopted, for example, in Armenia, Kazakhstan, Kyrgyzstan and Tajikistan) and in national employment strategies and employment promotion programmes where youth is considered one of the priority population groups. Several countries, such as Kazakhstan and the Russian Federation, have recently launched *Youth Employment Action Plans* that set concrete targets for youth employment policy and define responsibilities of all relevant stakeholders, actions to be taken and the time-frame for the achievement of these targets.

Many of the implemented policies and measures suggested above are anchored in these legal acts, strategies and programmes. In addition to state institutions implementing such policies and measures, state-owned and private enterprises have also launched their own programmes promoting youth employment, or are partnering with state institutions on such measures. Public works programmes are frequently offered to youth (Box 3.9).

Youth employment challenges are being tackled both on the supply and demand side of the labour market.

On the supply side, the key issue is to improve the quality and relevance of professional education and training of youth. For a smoother school-to-work transition, a closer interaction between schools and training centres and the world of work should be achieved. On the demand side, the main issue is to launch a macroeconomic policy that would stimulate job-rich economic growth, steadily ameliorate conditions for enterprise development, and encourage the creation of productive jobs. In this respect, own-account workers as well as the micro, small and medium-sized enterprises (MSMEs) deserve special support – not only to survive economically, but also to expand and improve their business so that the informal business will move out of informality, and all of them will offer productive jobs to other workers.

The key issue for delivering effective employment services and making a difference in the youth labour market situation is to reach out to as many young unemployed persons as possible, and to gain the confidence and collaboration of local employers. Various channels can be used to widely spread information among youth on: job mediation services; employment promotion programmes; legal advice; and possibilities of income support. The services should include: information on vocational orientation courses at schools; distribution of leaflets and promotion materials in youth centres; advertising or special programmes in the public media and in social networks that are popular among youth.

Internships have been organised in some of the EECA countries, such as Kazakhstan, regions within the Russian Federation and Georgia. However, in none of these countries does the legislation

Box 3.9: Public works schemes for youth in EECA countries

Public works, mainly focusing on construction, repair and maintenance of social and technical infrastructure (in addition to the provision of job matching services), are the most widely used and active labour market schemes in most countries of the EECA region and are also frequently offered to youth. For example, around 30 percent of all registered unemployed persons take part in public works in Kazakhstan, of whom one-third are youth; in Kyrgyzstan, 70 percent of all participants in the scheme are youth; and in Azerbaijan, almost 50 percent are youth. Public work schemes combine the provision of temporary employment to persons unable to find a regular job with activities that are economically, socially or ecologically beneficial for the municipality. Most of these temporary jobs require only low skills, and typical participants are also lower-skilled persons, people with disabilities, or youth without work experience, many of whom have been jobless for longer periods.

Source: Rausch (2019).

oblige or stimulate employers to offer temporary or permanent employment after completing internships. Nevertheless, some developed countries require employers to retain interns for some time at the employer's cost in order to increase the quality of training and/or provide the employer with a grant to eventually offer them a regular contract.

3.8 Youth employment experiences in the European Union

In 2019, in the European Union, there were 21.2 million youth aged 15–24, of whom 17.9 million were employed and 3.3 million unemployed (15.4 percent). Youth unemployment dropped from a peak of 24 percent in 2013, to 15 percent in 2019, which was faster than overall unemployment (less than 7 percent) and than the macroeconomic trend predicted. Despite this decrease, this rate is still very high (with peaks of more than 30 percent in several countries) and more than double the overall unemployment rate. In 2018, more than 5.5 million youth aged 15–24 were NEETs, which ranged from 8 percent in Sweden to 29 percent in Italy.

3.8.1 The unpredictable trends in the transition of EU youth from education to work

One of the most important decisions in life concerns the choice of when to make the move from education to the world of work. Given that the vast majority (90 percent) of youth aged 15–19 in the EU continued to participate in some form of education and training (formal or non-formal), the analysis in this section mainly focuses on the population aged 20–34. There is an emergence of new patterns of the education-to-work transition. Traditionally, most youth only started work once they had completed their highest level of education or training, and rarely combined education with a job. The transition has, in recent years, become more prolonged and increasingly unpredictable, with youth switching jobs more frequently and taking longer to become established in the labour market, either by choice or necessity. It has also become increasingly common to find tertiary education students taking on part-time or seasonal work to supplement their income, or for youth already in employment to seek a return to education and training in order to improve their qualifications, for example, through evening classes

or distance learning. As a result, the education-to-work transition has become less clear.

3.8.2 Precarious EU labour markets

With a higher proportion of the workforce working on a temporary or part-time basis, or as casuals (i.e. 'zero-hour contracts'), many of these workers are relatively young. Indeed, people who strive to move from education or training into the world of work are often particularly vulnerable since they may be the first to exit and the last to enter the labour market as they compete with other job-seekers who have more experience. Some employers criticise lack of basic skills and poor levels of numeracy and literacy among some youth upon leaving the education system, as well as their under-developed life skills such as communication and presentational skills, the ability to work in a team, problem-solving skills and their lack of work experience in and knowledge of their chosen profession. Although policymakers have sought to target particular groups of youth, such as unemployed youth, those who leave education and training early, or youth whose qualifications do not meet labour market needs, there is still a large number of youth in the EU who are NEETs.

With a surplus of labour, employers may prefer to recruit youth who have completed a tertiary level of education or an apprenticeship. Hence, youth with few or no qualifications may struggle to enter the labour market, and may be excluded from work, or may find themselves increasingly trapped in a cycle of low pay with little opportunity for progress.

3.8.3 Vocational training in secondary and post-secondary non-tertiary education

Vocational training in secondary and post-secondary non-tertiary education is typically offered to start before a person enters the labour market for the first time; at times it may also be offered in adult education programmes. In 2015, almost one-third (31 percent) of all enterprises with ten or more employees in the EU-28 countries provided vocational training, although the proportion varied greatly between EU Member States. In 2015, 73 percent of enterprises with ten persons and more employees in the EU-28 countries provided vocational training to their staff.

The dual system, which combines school-based education with in-company training, is typical of

Austria, Denmark, Germany and Switzerland, and more recently Norway among the OECD countries with the lowest unemployment rates for youth.

Apprenticeships are part of the formal educational structure and usually begin after the completion of compulsory education. They consist in three to four years of formal schooling in which employment relationships are established. At the end of the programme, apprentices graduate following a successful final examination in which they must prove their theoretical and practical understanding of the occupation. Dual systems have proved effective in giving youth a good start in the labour market (Box 3.10).

Box 3.10: Dual systems – the German experience

In November 2017, Germany had one of the lowest youth unemployment rates in Europe, at 6.8 percent. The German dual system of vocational education and training provides an excellent approach to skills development, in particular, initial vocational education and training. Due to this system, the country enjoys low youth unemployment and provides youth with high-skill levels. About 50 percent of all school-leavers attend vocational training provided by companies, reaching a high-skill level, which allows companies to acquire skilled staff.

Overall, vocational integration benefits and services for youth are provided both by the Federal Government and by the Länder and local authorities. Job centres, employment agencies, and youth welfare offices providing social services cooperate in providing youth with one-stop support. Germany also has various initiatives that share the goal of helping youth transition successfully from school to vocational training or academic study, and subsequently into employment. Overall, youth unemployment in Germany is one of the lowest in the EU; youth with a migrant background face challenges.

Source: Based on Rausch (2019).

International efforts – both by ILO and the EU – have focused on two issues concerning traineeships or internships: encouraging governments to improve the quality, structure and scope of skills provision; and emphasising the need to protect the labour rights of trainees or interns. However, these provisions are advisory rather than regulatory, and therefore the main responsibility in regulating traineeships/

internships remains with national governments. The likelihood of traineeships or internships becoming dead-end jobs is reinforced by the explicit or implicit exemption of trainees or interns from the scope of labour laws. Engaging in temporary work inevitably leads to the reduction of protections afforded to workers. The quality of employment that is available or guaranteed for a limited period of time only is reduced compared to permanent employment.

3.8.4 A ‘work-first approach’ for youth

A ‘work-first approach’ for youth is pursued by all other countries in the EU sample: the Southern European countries (Spain and Greece), the Eastern European countries (Czech Republic, Bulgaria and Poland) and the liberal welfare state (United Kingdom). Here, the employment policy aims at integrating youth quickly into jobs, although the instruments used might differ slightly. Spain, Greece and Bulgaria, which have ‘work-first school-to-work regimes’, implemented a work-first approach. All three countries show high preferences for subsidised employment. This approach is supported by implementing structural reforms of vocational training policies with a focus on improving formal qualifications in combination with apprenticeship programmes.

3.8.5 The New Skills Agenda for Europe

The New Skills Agenda for Europe, adopted by the EU Commission on 10 June 2016, set goals and launched ten actions to provide the right training, skills and support to EU citizens. In addition, the *EU Youth Strategy*, which is the new framework for cooperation on youth for the 2019–2027 period, focuses on three areas of action: ‘*Engage, connect and empower*’ in working on joint implementation across sectors.

Moreover, the *European Youth Guarantee* is a political commitment by all Member States enacted in April 2013 to ensure that all youth under 25 receive a good quality offer of employment, continued education and an apprenticeship or a traineeship within a period of four months of becoming unemployed or leaving formal education. It is based on a proposal from the Commission adopted by a Council recommendation. In its 2016 Communication, *Investing in Europe’s Youth*, the Commission proposed a renewed effort to support youth. The recommendation of the

European Youth Guarantee promotes an enabling policy approach to enhance individual capabilities.

3.9 Implications of regional and global lessons for South Africa

Youth [un]employment experiences across the world have important implications for South Africa. Some of the experiences are universal, but some are region-specific; some experiences are related to policies, and others to actions on the ground; and some relate to the present, and others to the future world of work. The following are teased out from the rich range of experiences discussed in this chapter, which could be relevant for addressing the issue of youth employment of South Africa.

(i) Extending high priority to youth employment

Youth employment promotion should be embedded in national employment acts, laws and programmes. The priority should be stated in the state youth policy and in national employment strategies and employment promotion programmes with youth considered as one of the priority groups within the population. Many of the policies and measures should further be anchored in legislation and within strategies and programmes. In addition to state institutions managing these policies and measures, state-owned and private enterprises should also launch their own programmes aimed at promoting youth employment, or should partner with state institutions.

(ii) Placing a special focus on active labour market policies that target youth

Employment and economic policies focusing on job creation and conditions for the full and productive employment of youth mainly comprise youth employment strategies and the integration of youth employment plans within national development strategies. The policies should include active labour market policies, sector policies, fiscal measures, public works programmes, policies on the rights of young workers, and education policies, among others. In addition, policies should be gender-sensitive and environment-friendly, and should target vulnerable and disadvantaged groups. Moreover, youth employment challenges should be tackled both on the supply and demand sides of the labour market. On the supply side, the key issue is to

improve the quality and relevance of professional education and training of youth. For a smoother school-to-work transition, a closer interaction between schools and training centres and the world of work should be achieved. On the demand side, the key issue is to launch a macroeconomic policy that would stimulate job-rich economic growth.

The Active Labour Market Policies (ALMPs) that recognise the heterogeneity among and between young men and women, and that target both individual characteristics (e.g. age, gender, educational level, socio-cultural background) and address specific labour market disadvantages are more successful than generic approaches targeting youth as a group. However, the costs and administrative capacity associated with targeted programmes should not be underestimated. The ALMPs can greatly facilitate youth's entry and re-entry into the labour market. If properly targeted and implemented, they can effectively benefit the most disadvantaged youth by mitigating education and labour market failures while promoting efficiency, growth and social justice. In many countries, youth are the main beneficiaries of ALMPs.

Targeting specific groups that experience specific market barriers such as vulnerable male and female youth makes sense. Offering packages with a broader range of services, rather than only providing managerial training or financial support for entrepreneurship might be more effective. Embedding entrepreneurship curricula in secondary and tertiary schools is an effective way of changing attitudes towards entrepreneurship. Vulnerable workers also include first-time job seekers, those living in poor households, the low-skilled unemployed and the under-employed. In practice, young school dropouts are unlikely to return to formal education.

(iii) Recognising that education and training are critical for skills enhancement

Key to skills formation is not only the quantity of education, but also its quality. Interventions to improve students' information on the returns from education have also paid off in reducing dropout from lower secondary levels. Some interventions to reduce dropout rates have generally been more effective at the lower secondary level than at the upper secondary level. Skills-enhancing training for youth by

combining classroom teaching, workplace learning and job search services can help them transition to employment. As shown by the LAC experiences discussed above, comprehensive training interventions for youth have positive results on youth employability, earnings, and especially job quality. Also, the interaction between design components and programme implementation is important for their effectiveness. Moreover, interventions should take a dual-customer approach by considering both the needs of employers and youth. Training must be market-driven and adapt to what employers are looking for, or where market opportunities are, in the case of entrepreneurship. Furthermore, interventions must also respond to the specific needs, capacities and interests of poor and low-income youth. In all cases, models should be flexible enough to allow for adaptation to different countries and types of youth beneficiaries. The integration and sequencing of various components targeting both demand (e.g. tax incentives, self-employment) and supply (e.g. training, career guidance and other forms of job search assistance) are more effective in facilitating the school-to-work transition.

(iv) Targeting and placing a special focus on the transition from school to work

Labour costs can be a substantial barrier in the school-to-work transition, in particular for low-qualified young job seekers. Therefore, it can be useful to carefully design wage subsidies while avoiding the displacement of current workers, rotation and deadweight loss. Progress towards successful school-to-work transitions must entail reducing the uncertainty of this transition period and enabling people to gain experience relevant to upward employment trajectories at an earlier stage. Reducing the uncertainty of these transitions, especially for youth from low-income households, can be a powerful way of weakening the inter-generational transmission of poverty and reducing inequality. The optimal pathways to employment should aim to: prevent leaving school early and also re-integrate those who leave school early; facilitate the school-to-work transition; increase the employability of youth; and/or remove practical and logistical barriers for youth with more complex needs. In sum, it is only a targeted approach for different subgroups that has the potential to effectively and successfully reintegrate NEETs into the labour

market and education. Accordingly, by following the skills for productivity approach, governments have diversified their initiatives according to the different characteristics of the NEET subgroups, paying attention especially to the vulnerable groups who are more likely to have disadvantages and hence be easily excluded from the labour market. A good example to follow is the *First Job* programmes, policies and laws that have recently become popular in the Latin American countries and elsewhere simply because they aim to influence work trajectories by improving youths' first experiences in the labour market. These programmes promote learning processes through quality apprenticeships, traineeships and internships, as well as work placement subsidies and special youth employment arrangements. These programmes seek to compensate youth for the disadvantages they face in terms of work experience and limited productivity when they enter the labour market.

(v) Encouraging transition to the formal economy

In developing countries, low productivity jobs in the informal economy are the main provider of work and livelihoods for youth. The transition to the formal economy has therefore become a policy target for many countries. The extensive attention now paid by governments to formalisation is opening up opportunities for further mainstreaming. Evidence from various countries indicates that the greatest reduction in informality rates is observed when the interventions are comprehensive.

In recent years, there has been a proliferation of different, 'non-standard' contractual forms used with the express intention of facilitating youth's entry into work. Informal employment forms dominate the experiences in developing countries. For young workers in developing countries today, informal employment is the norm rather than the exception. Informality implies a lack of social protection and weak basic work-related rights, and is also associated with lower job satisfaction and a substantial wage penalty.

A number of innovative approaches have been suggested that specifically address youth's needs and demands with respect to formalising informal employment relationships. For example, First Job First applies the concept that improving access

to a formal job first is key to reducing informality. The transition to a higher path requires improving skills and appropriate sector policies. Enhanced enforcement of legislation relating to labour contracts can be used in conjunction with other complementary measures to support the transition from informal to formal employment.

Formalisation strategies have been addressing informality from a productivity perspective, including the provision of coaching and mentoring programmes for micro-enterprises that choose to formalise. The focus here is primarily on promoting formalisation processes for micro-entrepreneurs and self-employed workers. To strengthen social protection floors as well as encourage formalisation, some countries have chosen to simplify registration processes and lower social security contributions for micro-entrepreneurs and self-employed workers. It is estimated that this has led to millions of micro-entrepreneurs and self-employed workers now covered by social security, of whom one-third are under 30.

(vi) Moving towards quality self-employment and entrepreneurship

Given the substantial heterogeneity both in the observable quality of self-employment and in the labour market outcomes attributable to entrepreneurship programmes, an important message is the need to focus on promoting quality self-employment and entrepreneurship. It is clear that entrepreneurship programmes alone cannot solve the challenge of promoting decent work for youth but can serve as a useful complement.

Entrepreneurship programmes offering youth business and managerial training, as well as mentoring

and counselling services show good results in many regions. Impact evaluations also show that financial support mechanisms have more limited success. Moreover, publicly funded programmes are effective, and outcomes are independent of public or private provision of services. A comprehensive approach to entrepreneurship support, encompassing training, financing and mentoring, has produced more effective results. Strengthening these components and giving them enough flexibility during implementation can considerably improve the effectiveness of programmes and deliver long-term effects.

(vii) Making a case for subsidised employment interventions for youth

Subsidised employment interventions may be particularly useful when the overall demand for young workers is low, for example, during times of recession. Wage subsidies typically cover a small share of the total work force, focus on formal sector employment and appear to be more effective in protecting jobs than in creating new ones. Complementarities and interactions with other labour market institutions are equally important, and wage subsidy programmes should take into account their presence and likely impact. Two possible interactions should be highlighted: (i) the presence, regulation, conditionality and generosity of passive labour market policies may affect the willingness of youth to participate in wage subsidy programmes, particularly if they are aimed at encouraging low-wage employment; and (ii) the regulation of wage subsidies should avoid possible conflict with minimum wage legislation. Governments can give youth a boost in the formal private job market via wage subsidies or help them enter independent employment via entrepreneurship programmes.

Multiple-service programmes **combining** classroom and workplace training **increase** the likelihood of positive labour market impacts by **30 percent**, but programmes that **combine** classroom and workplace training and other services increase it by **53 percent**.

(viii) The need for partnering in offering employment services

Employment services serve as an intermediary in that they are the main agent for the delivery of labour market services and policies. These services usually include the registration of job seekers, provision of counselling and guidance, management of unemployment benefits, and referral to active labour market programmes. However, the organisational structure, scope, funding and effectiveness of service delivery are country-specific. Offering employment services that provide more coverage of basic youth needs focusing on identified weaknesses while improving the access and quality of both education and vocational training are more effective and efficient. Multiple-service programmes combining classroom and workplace training increase the likelihood of positive labour market impacts by 30 percent, but programmes that combine classroom and workplace training and other services increase it by 53 percent.

Employers' and workers' organisations can help connect youth with the world of work by participating in the design and implementation of policies and programmes, and targeting youth. Benefits of empowered institutions, designs that are appropriate to the beneficiary-targeted population, and an approach involving long-term commitment and participation by the different actors involved all have good results and high impact. Employment services can stimulate innovation, learning, training, internships and apprenticeships while facilitating the certification of competencies, which are the conditions for accessing jobs.

(ix) Taking advantage of new technology and new frontiers of work

The 4IR is projected to create jobs in areas such as STEM, data analysis, computer science and engineering. For sub-Saharan Africa, the greatest long-term benefits of these jobs are likely found in the promotion of home-grown African digital creators, designers and makers, and not just digital deliverers. Regardless of sector or occupation, new work formats are offering individuals and entrepreneurs new opportunities. Online platform work is on the rise globally, including in sub-Saharan Africa. For example, the continent currently has 56 e-ride-sharing services, most of which are home-grown apps that have been launched over the last three years. Many countries in the region have consolidated their institutional support for start-ups, and new actors have entered the scene. Together with national governments and academia, the role of local governments and cities in enhancing entrepreneurship ecosystems is considerable. Also, private sector participation has increased, not only from the perspective of financing and investment, but also through new actors supporting the seeding of innovative entrepreneurship activities. Business associations are introducing new forms of collaboration and exchange for start-up support. In short, the rise of technology and the 4IR are the new frontiers of work. South Africa, just like other parts of the world, must harness and take advantage of these developments in order to fortify the huge demand for youth employment.

Chapter 4

The Changing World of Work and How to Harness South Africa's Youth Potential

4.1 Beyond the traditional concept of work

This chapter focuses on the changing world of work, both in terms of context and processes, and assesses the implications of these changes for South Africa's youth. It examines their job prospects and how they can be harnessed for better livelihoods and human development. In the final analysis, the chapter also highlights the likely constraints that will be faced during this transition.

The concept of work is broader and deeper than that of jobs and employment alone. Jobs provide income and support human dignity, engagement and economic security. Yet the traditional employment framework fails to capture many kinds of work that have important human development implications; for example, care work, voluntary work and creative work such as writing or painting. The dynamism and innovation that youth bring to work extend the frontiers of self-understanding and awareness of the wider surrounding environment. The work of youth changes mindsets and the way of thinking. Youth working together not only increases material wealth, but also a wide body of knowledge that enriches cultures and advances civilisation.

The work of youth and human development in its totality can be mutually synergetic. Work unleashes youth potential, creativity and energy, and thus becomes an *accelerator of development* in the context of the 2030 Agenda for Sustainable Development (SDGs), as well as the African Union Agenda 2063. Today, the types of work and how people work are being transformed by new technologies. Technological advances have not only transformed work, but are also engines for new forms of creativity and innovation. Collaborative teams and visionaries have turned ideas into tangible

goods and services. Innovations in computers and electronics have been central to this growth.

4.2 Understanding the changing world of work

The context of work is changing, with critical implications for human development. Driving the transformation of work are globalisation and technological revolutions, particularly the digital revolution. Globalisation has fostered global inter-dependence, with major impacts on the patterns of trade and investment, on growth and job creation, and on networks for creative and voluntary work. Today, the world is undergoing a new and accelerated technological revolution.

Globalisation brings workers and businesses together in global networks through outsourcing and global value chains. Companies relocate or subcontract some functions or non-core activities to other countries where costs are lower. Some companies do both; for example, Apple directly employs only 63,000 of the over 750,000 people around the world who design, sell, manufacture and assemble its products.

Today, the type of work and the ways of working are being transformed by new technologies. Some of the technologies with the highest potential to change the nature of work include: *mobile internet*, which affects the lives of 3.2 billion people; the *automation of knowledge work* through intelligent software systems; *cloud technology*; *3D technology*, which can produce any object from industrial prototypes; *energy storage*, which allows a maximum use of solar and wind energy; and *advanced robotics*. In addition, driverless vehicles, advanced materials, advanced oil and gas exploration, recovery techno-

logies, big data, biotechnologies and renewable energy technologies all feature in the technological revolution that shapes the world of work. With this changing world of work, South Africa, in its endeavour to tackle unemployment in general and youth unemployment in particular, must balance between work in the traditional sectors and the emerging opportunities in the digital economy. Furthermore, the country should not exclude the poor, the uneducated, the unskilled, and the marginalised. It must satisfy the needs of those who aspire to enter – and are capable of being engaged in – the changing world of work.

4.3 Youth employment in traditional sectors

In Africa, agriculture continues to be the leading traditional sector in employment generation, despite its decreasing share from 55 percent in 2005 to 44 percent in 2015. The decline was much smaller for youth, at 2.3 percentage points, with large numbers entering the workforce and being employed in often low-productivity agriculture which also remains a major employer in Africa. In a survey of African youth, nine in ten believed that their prospects would improve if general conditions in rural areas were to improve. Agriculture could be more attractive for youth by using technology such as robots and sensors to reduce drudgery and improve productivity and profitability. This would also support the development of upstream and downstream activities. Technology can also drive job growth in off-farm activities, including processing, storage and distribution, as well as in related activities, such as agribusiness, agritourism, and mechanical and agricultural engineering. In many cases, youth have been spearheading agricultural technology development and dissemination, often addressing gender and other barriers.

Prospects for youth in agriculture should also improve as financial services expand and reach remote areas and populations. Here, too, youth can play a key role. In Kenya, the *youth-led Farm Drive* uses data analytics and mobile phone technology to connect smallholder farmers with financial institutions. Capitalising on these opportunities will require strong technical skills development at both the secondary and tertiary levels, as well as a youth-friendly financial

system that understands the needs and constraints of youth in the rural economy.

In Ethiopia, Kenya, Uganda, and Rwanda, the productivity of agriculture has been increased through higher-value exports, such as cut flowers, horticultural produce, processed fish, shoe manufacturing and specialised coffees. South Africa can do the same. However, inadequacies in a range of skills – technical, scientific, managerial and entrepreneurial – impede progress up the value chain and reduce the potential for pursuing newer and more lucrative opportunities, such as biofuels, medicinal plants and green technology. With proper reforms, opportunities for young men and women in South Africa can certainly be created in agriculture, as exemplified in Box 4.1.

Box 4.1: Bolimi Bokamoso – a success story of youth employment through farming

Many African youth abandon farming when they migrate from rural to urban areas in search of employment. But for 30-year-old agro-entrepreneur Michael Mokime, a South African young man, providing employment for youth can successfully be enabled through farming. Mokime started his farming business in the John Taolo Gaetsewe district in the Northern Cape in 2013, and it has been fully operational since then. To add professionalism to his venture, he decided to name the business Bolimi Bokamoso. Michael also provides training and mentorship to many emerging farmers, including agro-processing and wholesale trade. In a country that has surging unemployment figures, he also provides both full- and part-time employment to many youth. Mokime believes that young farmers should not fear the challenges that lie ahead, but rather, focus on ensuring that the product of their work reaches the masses.

Source: Diza (2017).

Employment in rural, manufacturing and services will have to be promoted through sector value chains. This should be based on medium or large anchor firms or state-owned enterprises, or other institutions that provide sustainable market access and contributing to labour productivity, and thus sustainable wages and employment as well as sector competitiveness. It will be necessary to invest effectively and efficiently in human capital and skills to increase labour productivity and sector

competitiveness, which will provide sustainable jobs and income, and contribute to decent work.

In developing countries, low productivity jobs in the informal economy are the main providers of work and livelihoods for youth, and South Africa is no exception. In the third quarter of 2021, informal employment accounted for 19 percent of total employment in South Africa, providing jobs and livelihoods for nearly 3 million people. Enhanced enforcement of legislation relating to labour contracts can be used together with other complementary measures to support the transition from informal to formal employment. Successful experiences in Argentina and Brazil are cases in point. Formalisation strategies must address informality from a productivity perspective, including the provision of coaching and mentoring programmes for micro-enterprises that choose to formalise. The focus here is primarily on promoting formalisation processes for micro-entrepreneurs and self-employed workers.

While recourse to self-employment is often a coping mechanism for youth lacking alternative opportunities, it is by no means a universally negative option. Given the substantial heterogeneity both in the observable quality of self-employment and in the labour market outcomes attributable to entrepreneurship programmes, an important lesson is the need to focus on the promotion of quality

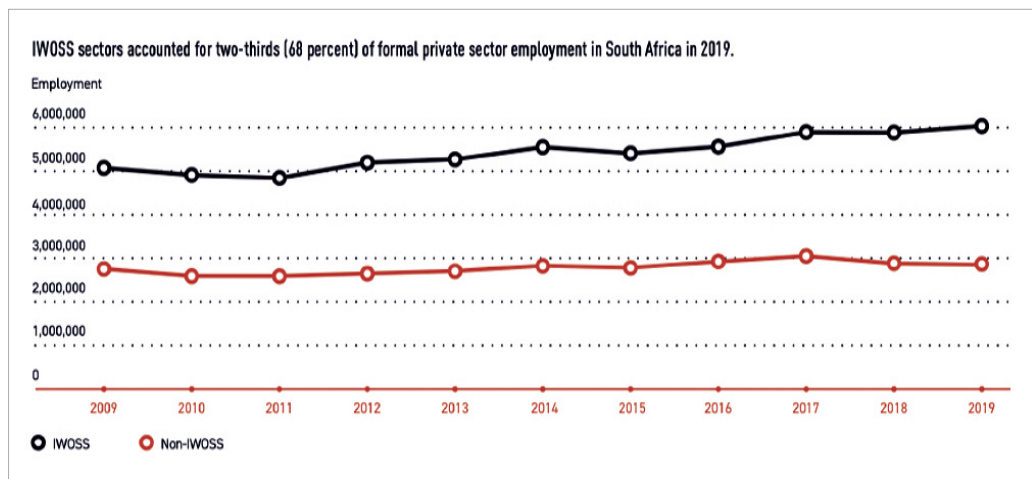
self-employment and entrepreneurship. It is clear that entrepreneurship programmes alone cannot solve the challenge of promoting decent work for youth, but they can complement other employment options. Accordingly, the sectors with greater potential for youth labour-intensive productive jobs should carefully be selected.

Jobs for South African youth in traditional sectors

The usual sectors for youth employment in South Africa are the traditional sectors such as agriculture and construction, or other activities, i.e. *industries without smokestacks* (IWOSS). Unlike the traditional *smokestacks* industries, these include high-value agriculture, tourism, business services and other tradable services. Reductions in transport costs and advancement in ICTs have led to the creation of services and agri-business that share strong characteristics with manufacturing. Like manufacturing, they are tradable and have high value-added per worker. These sectors have the capacity for learning and for productivity growth, with some exhibiting scale and agglomeration economies.

In South Africa, the IWOSS accounted for two-thirds (67 percent) of the 8.8 million formal private sector jobs in 2018. Two sectors account for close to two-thirds of this employment: financial and business services (34 percent) and trade (23 percent). Horticulture and transit trade have also increased their share of IWOSS employment.

Figure 4.1: Formal private sector employment in IWOSS and non-IWOSS sectors in South Africa, 2009–2019



The importance of IWOSS sectors is clear when considering the formal private employment between 2010 and 2018: the increase in IWOSS employment accounted for 72 percent of the change in formal private sector employment (Figure 4.1). Notably, in 2018, IWOSS employment was more female-intensive, at 42 percent, than non-IWOSS employment, at 33 percent (Box 4.2).

Box 4.2: Female-intensive employment in industries without smokestacks

Industries without smokestacks (IWOSS) sectors employ a higher proportion of females than do non-IWOSS sectors (42 percent to 33 percent in 2018). The IWOSS sectors with the highest female employment share are tourism (48 percent), trade (45 percent), agro-processing (45 percent) and Information and Communications Technology (ICT) (44 percent). Overall, it appears that higher IWOSS growth may have positive effects on female employment and may contribute to developing a more inclusive economy.

Importantly, the proportion of females employed has continued to grow in IWOSS sectors. This trend is set to continue and is not necessarily limited to lower-skilled employment, because women now comprise the majority of students at South African universities, which is equipping them with the necessary labour market skills to obtain a number of different jobs. The prospects for inclusive growth seem particularly good in tourism, trade, agro-processing and ICT.

However, greater efforts must be made to target and improve employment outcomes for women, not only in the sectors in which they are not currently well-represented. Indeed, much of the female employment in some IWOSS sectors may be gendered. This trend is also prevalent in the tourism and trade sectors. A variety of different employment opportunities, across different value chains, and at different skill levels may be available by unlocking the potential of IWOSS sectors. It is important that women are supported so that they can access all of these opportunities.

Source: Based on Allen et al. (2021).

In 2018, 15–24 year-olds accounted for 9 percent of employment in IWOSS sectors and 5.4 percent of employment in non-IWOSS sectors. The share

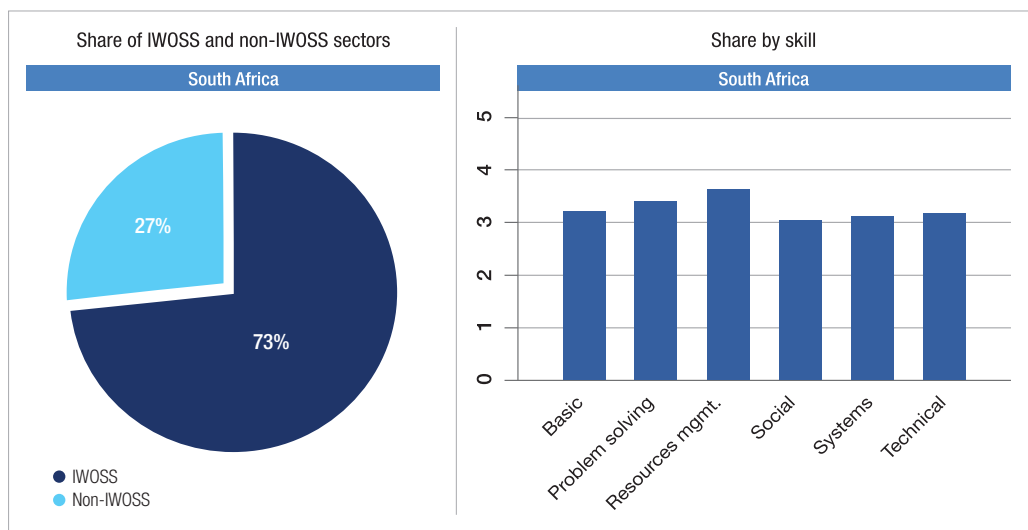
of 25–34 year-olds in employment is also higher in the IWOSS sectors than in the non-IWOSS sectors (34 percent compared to 29 percent). The IWOSS sectors, therefore, seem to be slightly more responsive in employing youth than the non-IWOSS sectors, with youth accounting for a larger share of employment in IWOSS and having higher growth rates in employment. Furthermore, IWOSS employment is more female- and youth-intensive, which suggests that IWOSS sectors may have the potential to provide greater opportunities for employment for these groups. Importantly, the broad IWOSS sector consists of a number of different sectors, some of which may individually be better placed to provide the type of employment required to address South Africa's widespread unemployment.

In South Africa, the types of jobs created in each of the four IWOSS sectors (agribusiness and horticulture; tourism; IT-enabled services; and transport and logistics) are varied and may cater to different segments of the unemployed youth population. The tourism, transport and logistics sectors provide the most scope for absorbing young South African workers. All four IWOSS sectors are growing, often more rapidly than the economy as a whole; hence, on the demand side of the labour market, there are opportunities in IWOSS for both youth and women to find productive jobs.

The IWOSS sectors offer the greatest potential for youth employment. Figure 4.2 indicates that 73 percent of all new jobs in South Africa will be in IWOSS sectors; hence an important question in this regard is whether or not youth have the skills needed for IWOSS.

Growth in IWOSS employment has two different implications for skill requirements. If IWOSS grows in sectors that favour low-skilled employment, there is less need for formal skills development. However, where there is growth of IWOSS sectors that offer opportunities for low-skilled employment and for medium- and high-skilled employment, there will be a need to develop and train youth to be able to take on higher-skilled occupations. In South Africa, skill gaps in basic problem-solving and technical skills have been indicated as of medium importance.

Figure 4.2: Share of new jobs projected to be created by 2035 in IWOSS and non-IWOSS sectors (left) and the importance of skills (right)



Source: Coulibaly, Brahima and Page (2021).

The surveys confirm that there are soft skill gaps across different sectors and occupations, and that youth, including the employed, often lack both formal qualifications and soft skills. To address the lack of soft skills, it is important for employers to develop mentorship and training programmes. Mentors can teach life skills to youth and highlight areas of strength and for improvement. Moreover, mentors usually hold more senior positions at a company and therefore can help new trainees to understand the skills required to reach such a position. These programmes are also a way to teach the specific skills required in a sector.

A demand-led approach to the attainment of qualifications through collaboration between employers and post-secondary educational institutions can be most effective in addressing skill gaps. Employers can provide input regarding their skill requirements in order for youth to obtain skills that are valued in the labour market. Businesses must be regularly consulted because skill requirements differ across sectors.

Although the IWOSS sectors have great potential for employing South African youth, they are not without constraints, which retard their growth. Some of the constraints are briefly discussed below:

- **Inadequate electrical infrastructure:** South Africa's current electricity crisis may pose the biggest constraint to the growth of IWOSS. Since 2008, Eskom, the country's state-owned electricity utility, has implemented load-shedding, i.e. deliberate and planned shut-downs of power in parts of the power distribution system to varying degrees so as to prevent a complete shut-down of the system. Insufficient and unstable electricity supply has led to increased input costs and difficult industrial relations, affecting business enterprise performance and investment plans. Reliable electrical power, lower costs of transport, workers who are better able to perform their jobs, and competition are essential drivers of firm-level productivity.
- **Lack of capacity and skills mismatch:** A reason often cited for South Africa's poor infrastructure is the public sector's lack of capacity and limited technical skills and expertise for infrastructure projects. There is a dire shortage of engineers at the local government level, with only a fifth of municipalities having engineers leading their technical divisions. Lack of capacity slows down infrastructure investment in South Africa, contributing to dwindling economic growth. Some initiatives of the National Youth Service Programme focus on the issue of mismatch of skills (Box 4.3).

Box 4.3: National Youth Service Programme – tackling the skills mismatch among South African youth

The National Youth Service Programme (NYSP) is a government initiative aimed at engaging South African youth in community service activities to strengthen service delivery, build patriotism, promote nation-building, and foster social cohesion. It also assists them in acquiring the occupational skills necessary to access sustainable livelihood opportunities.

In a constantly changing environment, having life skills is an essential part of being able to meet the challenges of everyday life. The dramatic changes in global economies over the past decade have been matched with the transformations in technology, which are impacting education, the workplace and household settings.

To cope with the increasing pace and change of modern life, youth need new life skills such as the ability to deal with stress and frustration. Today's youth will have many new jobs over the course of their lives, with associated pressures and the need for flexibility.

Source: Jahan (2019b)

- **Labour market regulations:** The most frequently cited constraints facing employers and firms are the regulations governing firing, hiring, and other non-wage costs. It emerged from a study by Borhat and Stanwix (2018) that South Africa, in comparison with other countries, ranks relatively high in terms of difficulty of firing and hiring employees, and also in the rigidity of working hours.
- **Corruption and political interference:** Since 1996, the World Bank's global governance indicators have shown a steady fall in South Africa's estimate of corruption control and governance effectiveness. Corruption and patronage have compromised the strength of many state institutions, leading to waning international confidence.

4.4 Potential future work for South Africa's youth

The issue of youth employment in South Africa's traditional sectors cannot be ignored. However, given the changing world of work, the focus must be on future opportunities that may emerge due to globalisation and the digital revolution. Although South Africa has not yet understood how the 4IR can enable it to take advantage of future job opportunities for youth, it does have the potential to do so in order to overcome its youth unemployment.

Given the ingenuity and entrepreneurship of South African youth, work in the sharing economy is a possibility. By taking advantage of mobile phones and other social media instruments, the provision

of personalised services is another option. With the tradition of deep technological adoption in the country, South African youth are well placed to explore opportunities in the knowledge economy. Their creativity and innovation enable them to expand the work horizons of start-ups and of the creative economy. All of these are facilitated by a robust service economy and a solid financial system in the country. And the question is: If South Africa's peers such as Brazil, China and India can do it, why not South Africa? Accordingly, the following discussion provides some advice about the future areas of work for South Africa's youth.

4.4.1 Personalised services and goods

Technology has also been transforming markets as many personal services move online. Customers can now use the internet to buy groceries, order from restaurants, make hotel and airline bookings, and hire help for housecleaning or babysitting. Online services require less commitment than employing service providers full-time and allowing customers to occasionally use services. The online system can also provide temporary work opportunities for those who seek extra paid work or women who want a flexible schedule. Online task service companies allow people to pay providers to run errands such as shopping or queuing for theatre tickets.

Digitisation has also revolutionised creative work and empowered small producers and artisans in South Africa. It is possible, through sites such as eBay and Etsy, for artisans to find buyers looking for specific or niche products. Authors and artists can self-publish and share their creations around

the world, whether as e-books, music downloads or video clips. Smartphones have created a new mass market for small-scale software designers targeting specific needs. Online stores sell individual apps that enable users to monitor their health, learn languages, and even play games. The resulting ‘app economy’ has developed at breakneck speed.

4.4.2 Upsurge of new business services

With the extension of the internet to households, it has become possible for individuals to provide business services from their homes. This often requires specialised white-collar skills such as computer programming, copywriting and back-office legal tasks, which can be performed by South African youth. But the country scores poorly when benchmarked against youth entrepreneurship in fellow BRIC countries. Only 7 percent of South Africans aged 18–24 and 10 percent aged 25–34 start their own businesses. Nevertheless, there are examples of successful business ideas that South African youth have pursued (Box 4.4).

Box 4.4: A business idea that worked for a South African entrepreneur

The successful founder of the Designers Emporium, Paul Simon, sold his business when it had an annual turnover of ZAR 160 million at the time of its sale, to start his own home-grown rooibos iced tea brand, *Uber Flavour*. A similar South African product was being produced in Stuttgart, Germany, and *Uber Flavour* was a response to correct that *injustice*. *Uber Flavor* sold out in the first six weeks of production, and within eight months, it was in 150 locations in Cape Town and Johannesburg, from restaurants to grocery chains.

Source: Jahan (2019b)

Most new business services are mediated by companies that coordinate freelancers with small and medium-size firms that require business services. Coordination companies collect a commission from the freelancer, but often charge no fee to those offering the jobs. Most of this work has been carried out in urban areas, but there are now efforts to extend the opportunities to more deprived areas through ‘impact sourcing’, which is a form of socially responsible outsourcing that seeks to create jobs for

disadvantaged groups. This would create a potential for more rural employment.

4.4.3 The sharing economy

Another emerging trend with the potential to reshape youth work in South Africa is the sharing economy. It is now possible to match demand and supply between individual providers and consumers. Alternatives to taxis allow people to use their own cars to provide ride services, blurring the distinction between professional drivers and those who have a spare seat in their private car. Technology is also allowing traditional taxi drivers to more efficiently find customers via online services such as Uber, GraTaxi and Lyft, which operate in several countries in South-East Asia. The same principle is being used by *auto rickshaw drivers* in India via mGaadi online services, or in Bangladesh using *Pathao*. Other companies allow people to rent out accommodation in their private homes, such as Airbnb. All of these can change the landscape of jobs and employment of South African youth.

4.4.4 Start-ups

When youth identify a good idea in the course of their work and want to pursue it on their own, they now have technology at their disposal to support their entrepreneurial efforts. However, even though South Africa has the second highest ranking in entrepreneurship in Africa, according to the Global Entrepreneurship Index, only 15 percent of South African start-ups are successful. There is definitely some promise: start-up incubators, acceleration programmes and foreign investment options are growing year by year, with a prevalent focus on young black youth (aged 18–24). It should be highlighted, however, that creating and nurturing entrepreneurs must start at the secondary education level. Start-ups are taking root in South Africa, yet they face challenges, such as access to capital, the lack of sustainable ideas, weak legal institutions as well as long-term viability, which is their biggest challenge.

4.4.5 Crowdfunding

In addition to working as individual contractors online, South African youth may also take on work as *crowdworkers* through more casual channels.

This work generally involves human intelligence tasks, and the pay and work conditions are less than ideal. Major players in the market include Clickworker, Cloud Work, Casting Words and Amazon's Mechanical Turk. Amazon's Mechanical Turk is the largest market with a global pool of half a million workers. As of July 2018, there were more than 325,000 human intelligence tasks available for workers, all offering various job options for South African youth.

4.4.6 The knowledge economy

In recent years, knowledge has become central to production. Even in manufacturing, the value of finished goods increasingly derives from embodied knowledge. For example, the price of a top-end smartphone is driven less by the cost of components and assembly, and more by the high charge for sophisticated design and engineering. In the past, many successful economies moved from low-margin, labour-intensive goods to electronic assembly, and then to higher manufacturing, design and management. South Africa can do the same: the country no longer has to look to manufacturing as the only avenue to absorb their jobless millions, since much of that work can now be automated.

4.4.7 Creative innovations

Technological advances have transformed the world of work and are also drivers of new forms of

creativity and innovation. The digitisation of creative work is also expanding access to works of art such as painting, ceramics, sculptures and prints; South African youth engaged in creative work can explore how to take advantage of this.

4.4.8 Virtual volunteerism

Forms of work enabled by the digital revolution extend beyond paid employment. There are new opportunities for volunteering, social activism, political engagement and artistic expression. Individuals can work together virtually across borders and time zones to pool their resources and ingenuity. The digital revolution has changed the nature of volunteering thereby opening opportunities for those who may not have previously volunteered. Box 4.5 shows how efforts are being made in South Africa in bringing young volunteers into employment.

4.4.9 Social entrepreneurship

Social businesses are emerging as new areas of work for youth that are designed to address specific social problems; these are cause-driven entities such as non-loss, non-dividend companies where all profits are re-invested back into the companies. The primary aim is to render them financially self-sustainable and thereby maximise social benefits, as opposed to solely maximising profits even if desirable. Inspired by a particular cause and by the desire to give something back to society, a number

Box 4.5: Zlto – From volunteerism to work

Young South Africans often cite lack of appropriate credentials and work experience as their top challenges when trying to enter the job market. This is the problem that the Cape Town-based social start-up Zlto hopes to solve with an approach based on mobile phones and blockchain technology that underpins crypto currencies such as Bitcoin, in addition to a little financial help from Google. Zlto is an initiative by a local non-governmental organisation, Reconstructed Living Labs (RLabs), and its mission is to involve youth in their communities as a stepping-stone towards employment. Voluntary work can range from cleaning up the environment to painting dilapidated public buildings. Users clock in by taking a 'before' photo of the particular activity and uploading it onto the Zlto app, and then an 'after' photo once the job is completed. The work experience gained is recorded in a blockchain ledger, making it transparent and easy to verify.

In addition, the voluntary work completed is rewarded in Zlto's digital currency, which can be spent at either Mr. Price on clothes, or at over 1,000 Shoprite stores on groceries, or even on airtime – one of the major expenses for those actively seeking work. It has been nearly two years since Zlto went mobile, and in that time, over 25,000 youth have registered, intent on impacting their communities and being the change they wish to see. Recently, Google awarded this app with US\$250,000 (about ZAR 3.5 million) as one of the winners of its Impact Challenge competition, which seeks to invest in start-ups that use tech to tackle societal issues. It was also a winner of the Global United Nations Development Programme-United Nations Children's Fund (UNDP-UNICEF) Think Big Challenge Award of US\$200,000 on innovative approaches to connect youth.

Source: Based on Rangongo (2018).

of successful commercial entrepreneurs in different parts of the world are transitioning from 'for-profit ventures' to engaging in social change. For example, in India, a survey of 763 commercial entrepreneurs who experienced a transition from commercial to social entrepreneurship between 2003 and 2013, and a quantitative analysis of a final sample of 493 entrepreneurs indicate that 21 percent of the successful entrepreneurs shifted to social change efforts. Most are young, independently wealthy, skilled organisation builders, and they are often from outside the establishment with some from the diaspora and from the *reverse brain drain*.

4.5 Constraints against the new work opportunities for South Africa's youth

The new world of work presents enormous opportunities for South African youth. However, there are also risks and associated vulnerabilities arising out of globalisation, technological change, digital revolution, and flexible labour markets. As indicated in preceding sections, the 4IR also poses some challenges for them in terms of jobs. But more importantly, they face specific constraints to new work opportunities, which are important to identify and address through proper strategies and policies. The jobs that are growing in the changing world of work demand complex interaction skills that require deep knowledge, judgment and experience, more than routine transaction or production skills. But there is a mismatch between the skills that are needed and those that are available. Thus, the challenge of the skills mismatch in the new world of work is due to the pace of technological innovation and to the rapid growth in demand for new and higher skills, which are not forthcoming.

Transitioning into higher value-added services and manufacturing increases demand for workers with at least a secondary education and some vocational training, as well as for highly qualified professionals and technicians. In an extremely dynamic global market, where products and processes change rapidly, basic education in literacy and numeracy as well as fast and efficient continued learning are critical. Having a core set of capabilities promotes success in many aspects of life. Cognitive and non-cognitive skills (e.g. conscientiousness, self-

regulation, motivation, time preference and far-sightedness) interact dynamically to shape the evolution of subsequent capabilities.

Interventions in early childhood have the greatest impact on promoting these essential skills. They also reflect the investments in human capital made by parents and children. In South Africa, only 79 percent of children are in pre-primary education. In order to improve the situation, the early environments of disadvantaged children should be enriched, which can improve child outcomes and can positively affect cognitive and non-cognitive skills. Increasingly important are the quality of education, the ability to learn and solve problems, and e-literacy. Most developing countries have attained near-universal primary education. In South Africa, the gross enrolment ratio at both primary and secondary level is 103 percent. However, secondary education and high-quality education are essential foundations for an employable workforce for the future.

4.5.1 Inadequate and inappropriate education

Inadequate and inappropriate education is leaving South African youth behind in terms of getting jobs. There are many reasons for this, such as: the underfunding of schools; disparities in the quality of education; teachers not properly qualified; outdated curricula; and limited access to computers. The consolidated public expenditure on education at all levels accounted for 6 percent of South Africa's GDP, and although this compares well with countries such as Mauritius (5 percent) and Kenya (5.3 percent), it is below that of education leaders such as Republic of Korea (7 percent). More than 5,000 teachers in the country are unqualified or under-qualified. Although this is only 1 percent of the total pool of teachers, it is not acceptable in a country like South Africa; hence, addressing this issue should be prioritised.

As a result of the skewed prioritisation, just under half of children who enrol in Grade 1 will make it to Grade 12; around 20 percent to Grade 9, 10 and 11 pupils are repeaters, suggesting that they have been poorly prepared in the early grades of the school system; and just 28 percent aged 20 or older have completed high school. Just one in three schools has a library, and one in five, a science laboratory. There is also an aspect of inequality to this: only 3 percent of black people over the age of 20 have a university

degree compared to 14 percent and 18 percent of Indian and white people, respectively. In the poorest quintile of schools, less than one out of 100 matric candidates will receive a distinction in mathematics; in the richest quintile, this figure is just 10 percent.

All of the above factors have impacted the employability of South African youth. The unemployment rate for tertiary qualified professionals increased from 8 percent in 2008 to 13 percent in 2018. Similarly, the labour market absorption rate for tertiary qualified professionals was 75 percent in 2017 compared to just 43 percent for the country as a whole. To close this gap, policies must prioritise the establishment of a mandatory National Youth Service Scheme for tertiary graduates.

In sum, the current education system is leaving youth, especially those from disadvantaged backgrounds, under-qualified and unprepared for the available jobs. It is clear that the challenges of the 21st century job market cannot be addressed through 20th century education.

4.5.2 Lack of needed skill sets

In 2016, despite an estimated 500,000 entry-level vacancies throughout the country, South African youth often lacked the necessary skills, i.e. problem-solving skills, business acumen, technology savvy as well as communication skills needed for the workplace. Moreover, on-the-job learning (training, mentoring and coaching) is not standard practice for most workplaces. The youth who participate in demand-driven training programmes and are then hired rapidly become valuable staff. They are therefore more motivated to perform well and integrate quickly in the work environment.

4.5.3 Poor labour market mechanism and inadequate information

Youth are at times unaware of the opportunities for gainful employment. Many of them are also unaware of the emerging 4IR and are not prepared for it. The current system of market information makes it hard for disadvantaged youth to find job opportunities and for employers to find entry-level candidates. This occurs for various reasons: employers engage in low-risk hiring practices; experienced workers are favoured over first-time job seekers; and the quality of the secondary school system is highly variable, hence causing employers to dismiss the matric certificate as an unreliable indicator of competence and thus

insisting on tertiary qualifications. Additionally, the standard screening and selection tools and methodologies frequently filter out disadvantaged candidates.

4.5.4 Biased processes of recruitment

When trying to enter the job market, the two hurdles that South African youth often face are the lack of appropriate credentials and insufficient work experience. The lack of adequate work experience may become a paradoxical phenomenon for youth: they do not find jobs because they do not have enough experience, and they cannot accumulate enough experience because they do not hold a job. Clearly, the outdated human resource systems, structures and processes favour experienced workers over first-time job seekers, and this is made worse by the lack of on-the-job training.

4.5.6 Inadequate entrepreneurial skills

Another key challenge facing young entrepreneurs in South Africa is the lack of entrepreneurial skills both at formal and informal levels. Although entrepreneurial activity is increasing, South Africa still lags behind other countries. The experience of the entrepreneur is a critical driver in the likelihood of their entrepreneurial success. Although entrepreneurship may well be an inherent skill, it can also be taught, provided that the individual receives appropriate inputs, including opportunities for collaboration, for refining their individual skills, networking and life-long learning.

4.5.7 Lack of support from established corporates

In South Africa, entrepreneurs often fail because they do not receive enough support. For example, many large corporations show an unwillingness to work with start-ups. The private sector at-large also is not open to working with start-ups, and instead, often sees them as competitors. Yet, support for young businesses is vital to their success, given that most start-ups start breaking even after around 19 months. In South Africa, the start-ups that received support had a 50 percent greater chance of creating jobs, and were more likely to generate 60 percent more revenue and three times more likely to secure investments. There is a dire need for entrepreneurs who will not only succeed, but who will also have the ability to positively impact and transform their community.

4.5.8 Inadequate funding and resources for young entrepreneurs

One of the leading causes that kills the entrepreneurial spirit among youth is the lack of access to finance. Due to inadequate funding and resources, young entrepreneurs may find it more difficult than their more seasoned counterparts to start and grow a business. Similarly, the lack of access to information on how to source funding is also a challenge. In South Africa, the direct and indirect effects of an investment of 2 percent of GDP on job creation would amount to 511,000 jobs in construction (29.6 percent of direct jobs for women) and 414,000 jobs in the care sector (61.4 percent of direct jobs for women).

Investing in the care economy dovetails with the recognised importance of early childhood education for human capital development; millions of new teachers will be needed. It is also estimated that by 2025, South Africa could create 462,000 additional jobs by 'going green,' including in clean energy generation, energy efficiency, pollution control and natural resource management.

4.6 The Fourth Industrial Revolution and its implications for South Africa's youth

The technological revolution and the digital economy highlighted in previous sections do not necessarily represent an absolute boon. Rather, there are associated risks, particularly for youth. The 4IR reflects how new technologies such as robotics, virtual reality and the Internet of Things are changing the way we live and work. During the 4IR, not only individual machines, but also entire factories become smart and automated, rendering the production process more precise and products more customised. Digital technologies will allow products to control their own assembly as they communicate specific product requirements (colour, size, material) and steps to be followed by machines that can in turn communicate with each other to control the speed and flow of assembly lines.

Today, technology is moving so fast that hundreds of millions of youth are in danger of being left behind unless they acquire the skills needed to succeed. Under such circumstances, the future could look bleak for 2 billion youth by 2030 unless the global business community shows leadership and comes

up with new solutions. Given this reality, one important issue concerns the implications of the 4IR for South Africa. In particular, it is necessary to ask whether the 4IR changes the fabric of work and economic activities of the country. *Does it give hope to the country in its efforts to overcome its mounting unemployment problem, or does it bring more risks and vulnerabilities? Does it bring new opportunities to youth that they can easily take advantage of? What are the prospective benefits of the 4IR for South Africa, and what are its pitfalls? And is the country ready for it?*

Although there are no easy answers to these important questions because the situation is still evolving, broadly speaking there are at least two schools of thought. The first believes that South Africa should take a step back to the third, or even the first and second, industrial revolutions in order to lift its population out of unemployment and despair. According to this school of thought, South Africa should follow their path of first adopting an export strategy like China's to export basic, low-cost products, followed by the export of higher value-added products instead of trying to skip the phases that developed economies such as the United States of America, China and Japan underwent. Accordingly, South Africa would need to develop industries to absorb low and unskilled labour. Combining this with cheap labour, would attract foreign investment and earn money from exports. Also, according to this school of thought, a vast part of the South African population is so impoverished that it will not fully benefit from the 4IR. China took advantage of its low exported labour and is now one of the leaders of the 4IR. South Africa therefore needs to do the same.

According to the second school of thought, the conditions are relatively positive in South Africa for tackling the 4IR, since it has deep technology adoption and a sophisticated service economy. Indeed, the ability to innovate is one of South Africa's greatest strengths, given its strong innovation culture, and its entrepreneurial activity is supported by a sophisticated financial sector. Also, there are deep commitments from the top to making South Africa adopt the 4IR. Discussions are ongoing on the unlocking of economic potential and the creation of a Silicon Valley in the country. To help realise this, a Commission on the Fourth Industrial Revolution has been set up, which will

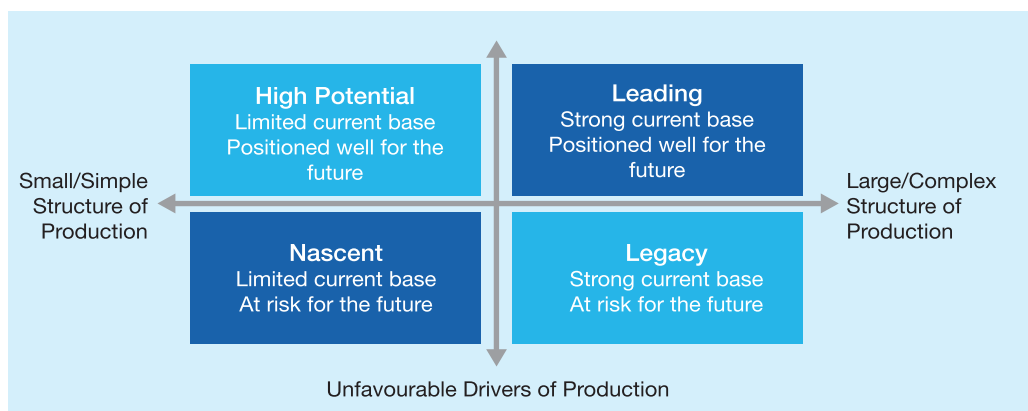
advise the Government on the 4IR strategy and policies. The Cabinet adopted a *National Connect* in 2013 and a national e-Strategy in 2017. This second school of thought puts forward three other arguments: (i) that South Africa has world-class universities where research is conducted and innovation can thrive. The discovery of the Omicron variant of COVID-19 before any other country was due to its viable research system. Research and development (R&D) is a major element of the 4IR. The return on R&D in South Africa is four times greater than that in the United States. In addition, South Africa has cities where innovations and entrepreneurs can flourish. Finally it has been heralded as an opportunity to generate ZAR 5 trillion approximately the size of South Africa's current GDP over the next decade.

In South Africa, common examples of the 4IR technologies include: artificial intelligence (AI) whereby machines are able to identify patterns, solve problems and make decisions in a manner similar to humans. Another example is the *Internet of Things* (IoT), where objects such as the refrigerator or car connect to the internet and communicate with each other. The other example is the one of blockchains which are secure, decentralised, digital ledgers that are widely used as the backbone for cryptocurrencies such as Bitcoin. These are just a few examples of a growing range of the 4IR technologies that can create significant benefits, such as raising income levels, improving the quality of life, and decreasing the cost of trade.

Against this backdrop, the key questions are: how can some of the reservations raised concerning the 4IR affect South Africa's economy, and how can overcoming them contribute to it becoming a more digital, complex and higher value-added economy? If it is agreed that there is some convergence between technological domains, is South Africa ready to absorb these new technologies and apply them for improving the economy, reducing inequality, creating jobs, and building a modern state? The best way to illustrate South Africa's readiness for the 4IR is to combine the current situation with future prospects, as shown in Figure 4.3. The horizontal axis represents the structure of current production, from simple to complex, and the vertical axis represents the future drivers of production, from unfavourable to favourable.

South Africa has been assessed as being in the nascent quadrant. Across the Drivers of Production component shown in Figure 4.3, the country's performance is mixed. On the one hand, its ability to innovate is one of its greatest strengths, considering that it has a strong innovation culture and that entrepreneurial activity is supported by a sophisticated financial sector. On the other hand, human capital still remains the most pressing challenge in preparing for the future of production since there is a shortage of engineers and scientists, as well as shortage of digital skills. It will be critical for South Africa to improve its institutional framework to effectively respond to change, offer a stable policy environment, and direct innovation.

Figure 4.3: The four archetypes of the Readiness Diagnostic Model Framework



Source: Levin (2018).

South Africa has not yet migrated from analogue to digital terrestrial broadcasting. This is a necessary move to free up a valuable spectrum for rural mobile data connectivity, provide internet access to those who do not yet have it, and accelerate the path to 5G. Analogue to digital migration should have been completed by 2015, but a combination of indecision, incompetence and possibly corruption led to successive delays. Without a stable energy supply and high-speed, low-cost, universal broadband coverage, effectively capitalising on the 4IR will be challenging, if not impossible.

The adoption of smart technologies that accelerate industry 4.0 remains at an embryonic stage in the South African manufacturing industry overall, with some sector differences. For instance, it is reported that there is a stronger usage of advanced analytics in the automation and automotive sectors than in others. Advanced sensor technologies are, with some exceptions (e.g. automotive industry), still at an embryonic stage. In the Digital Capability Assessment, South Africa's BRICS peer countries

are all emerging, with China showing the highest momentum, followed by the Russian Federation and India. South Africa is falling further behind its peers. However, manufacturers show great interest in better leveraging the potential for monitoring, controlling and tracking, among other possibilities. The usage of robotics is mostly at an automated stage and not yet at a smart or advanced stage. Within South Africa's manufacturing industry, 3D printing has not yet been widely adopted, although awareness of the significance and the potential of this exponential technology is high. Also, technological and social capabilities are closely related. Firms not only draw on technological capabilities to innovate and adapt, but also on the social environment, local resources and the legal frameworks. In light of all these considerations, a critical question becomes: how are South African youth prepared for taking advantage of the 4IR? UNDP has been at the forefront of this question and is pursuing a number of initiatives in that direction, as illustrated in Box 4.6.

Box 4.6: UNDP – A catalyst in preparing South Africa for the Fourth Industrial Revolution

Through its several innovative initiatives, United Nations Development Programme (UNDP) has been supporting South Africa in preparing its youth for the Fourth Industrial Revolution (4IR). Some of the exemplary initiatives are as follows:

- **Google for Education:** Partnering with Google's Next Billion Users (NBU) and others, UNDP is implementing a pilot programme in several disadvantaged schools in South Africa to reduce the many barriers to digital learning and to ensure the most impactful integration of e-learning. The achieved milestones to date are: 22,619 students were identified and evaluated to take part in the project, and 14,334 student accounts were set up for the G-Suite for Education Platform.
- **Linking Youth to the Future of Work through Blockchain Technology:** UNDP and United Nations Children's Fund (UNICEF) South Africa has partnered with the Cape-based NGO, RLabs, which developed a digital rewards system called Zito. The system aims at reducing employment barriers that youth face, such as lack of work experience, the cost of seeking jobs, and weak access to credible networks by rewarding them for doing good. Milestones have been achieved: 75,000 Zito-registered new users (60 percent females); 949,636 micro tasks completed; and 195,959 youth benefited from decent jobs.
- **Digital skills for not in education, employment or training (NEET) youth:** UNDP, together with other development partners, has been supporting the Government of South Africa in implementing its National Digital and Future Skills Strategy (2021–2025). The joint programme is structured around three interventions: (i) technical support for the development of a national *platform of platforms*, creating effective data management to inform digital skill initiatives for NEET; (ii) institutionalisation of digital case management to link NEET to learning and job opportunities; and (iii) the design, development and piloting of four pre-entry level digital skills development programmes with the goal of training 50,000 NEET youth with pre-entry-level digital skills by 2025.

Source: UNDP South Africa (2022)

4.7 In search of sustainable solutions for the youth unemployment crisis

Taking into consideration the foregoing assessment of the overall employment situation in South Africa; the landscape of youth employment; the lessons learned from other regions on the issue of youth

employment; and the changing world of work with the 4IR, the critical question now is: what can be the way forward for the employability of South Africa's youth in the near future? What strategies should be explored, what policies pursued, and what institutional reforms considered? The concluding Chapter 5 aims to throw some light on these questions.

Strategies for Enhancing the Employability of South Africa's youth

5.1 Tackling youth unemployment and slow economic growth

This chapter addresses the key question regarding widespread youth unemployment in South Africa and how it can be tackled effectively on a long-term, sustainable basis. The chapter also considers issues relating to how the employability of these young men and women can be enhanced given the present new world of work outlined in the previous chapter. Drawing on best practices, the experiences acquired and lessons learned from the rest of the world, the chapter also considers some of the strategies that South Africa should pursue and the type of institutions that will be required in order to meet the overarching objective of enhancing youth employability.

It is to be noted that the South African economy faces the triple challenges of slow growth, significant poverty and diverging inequalities, and stubbornly high levels of unemployment that the country has not been able to overcome since independence. The country remains trapped in a cycle of high inequality and slow job creation, with youth particularly affected by unemployment and poverty. These levels of inequality reflect a polarised society, with a small elite, a relatively small middle class, and a large class of poor people. The impact of this poor economic growth on the labour market has been significant. As mentioned, South Africa's official unemployment rate rose to 35.0 percent in the third quarter of 2021. According to Statistics South Africa, in 2017, there were approximately 20 million youth in the country (i.e. one in every three South Africans were in the youth age bracket). At the time, the official unemployment rate among youth aged 15–24 years was 67 percent while for youth aged 25–34, it was

44 percent in the third quarter of 2021. Moreover, the unemployment rate for 2020 and 2021 may have increased due to the impact of COVID-19 and the related lockdown and restrictions that accompanied the outbreak of the pandemic. Moreover, the South African economy was already vulnerable when the COVID-19 pandemic broke out in March 2020.

In South Africa, only one in three working-age youth are employed. Indeed, youth across the country are not reaping the benefits of job creation, and job losses hit them the hardest. Between 2008 and 2015, one million more adults were employed in South Africa, while youth job losses numbered over 200,000. For more than 12 million youth, this resulted in limited earnings potential and a life on the margins of the economy. South Africa may thus face the prospect of another lost generation through the erosion of skills and human capital that comes with prolonged joblessness, and in turn, an ever-growing number of youth who are reliant on state grants. Actions must therefore be taken swiftly and urgently.

5.2 The case for a stable macroeconomic framework

Employment is an important channel through which the income generated through economic growth is distributed. It is therefore recommended that a shift be made in macroeconomic policies, for example, in the focus of all socio-economic policies towards economic growth and employment creation. Employment creation must become an explicit and central objective of all economic and social policies at the national and sub-national levels (including the provincial and local government levels). An inclusive or pro-employment macroeconomic policy framework is needed, which would simultaneously

contribute to the fight against poverty and inequality.

Macroeconomic variables such as the inflation rate, interest rates, the exchange rate and real wages (compensation) have a strong influence on unemployment in South Africa. It is therefore important for macroeconomic stability to be maintained through lower inflation and interest rates, and stable exchange rates. The identified policy thresholds and employment creation sectors also need to be prioritised. In this regard, at least 11 macroeconomic policies outlined below may be pursued for generating and accelerating youth employment in South Africa.

- **Setting an employment target:** Given the breadth and depth of youth joblessness in South Africa, and the likely serious consequences, the country may consider setting employment targets for youth. The South African Central Bank may pursue dual targeting; i.e. moving beyond a focus primarily on inflation control to emphasising youth employment targets. They may also consider specific monetary policy instruments, such as credit allocation mechanisms for youth, which would create more work opportunities for them.
- **Formulating an employment-led growth strategy:** Employment can no longer be considered a derivative of economic growth. Some policy interventions would entail: strengthening links between small and medium-size enterprises (SMEs), people in need of capital, and large, capital-intensive firms to boost youth employment; upgrading young workers' skills over the lifecycle; focusing investments and inputs on sectors that significantly employ poor youth (e.g. agriculture); removing critical barriers to employment-led growth (e.g. removing biases towards SMEs in access to credit); implementing solid legal and regulatory frameworks; and addressing the distribution of capital and labour in public spending so as to emphasise technologies that create jobs.
- **Keeping the real exchange rate stable and competitive:** Financial volatility can make work environments and jobs less secure and reduce investments in the real economy of South Africa. A stable exchange rate is an economic fundamental that can stimulate growth and

employment. There is a consensus that currency appreciation has a negative impact on employment because it deteriorates the country's international competitiveness.

- **Assuring prudent capital account management:** This is important if the exchange rate policy is to promote job creation for South African youth. Transparent and widely agreed rules for capital controls can be pursued to reduce the volatility of capital flows in and out of the country and thus the volatility of investments in productive work activities.
- **Building fiscal space through comprehensive tax administration and efficiency in resource use:** Public spending can create jobs for youth, but fiscal space for public spending requires a well-structured, transparent and an efficient plan, as well as a system for taxation and spending. Establishing sound fiscal measures during booms and normal periods of growth, and drawing on a dedicated stabilisation fund during recessions are good options for supporting public investments. Overcoming leakages of resources would also enhance the use efficiency, which is equivalent to mobilising new resources.
- **Restructuring budgets to allocate resources to job-creating sectors:** This would entail reviewing current expenditure patterns and reallocating resources to employment generation (e.g. jobs for teachers and nurses in the social sectors, public works programmes, and operation and maintenance of physical infrastructure). Adjusting the distribution of capital and labour in public spending to create jobs can be an effective way to generate youth employment. Public spending can support job creation through the types of technology used and the sectors in which spending takes place, with an eye to enhancing human development, for example, by spending on health, education and other social services. When this approach is taken, the public sector can also play a guiding role by informing the rest of the economy on the availability and ways of using more labour-intensive technology than capital-intensive technology.
- **Using specific monetary policy instruments to increase investments that grow jobs:** These instruments include policies that increase

financial support to business activities and investments in the real economy, for example: credit allocation mechanisms drawing on asset-based reserve requirements, which make it more expensive for banks to hold reserves; loan guarantees that reduce the risk of borrowing for entrepreneurs; support for pooling and underwriting small loans; and the use of the discount window to release funds from central banks for work-generating investments and capital management techniques. These instruments can also be made gender-sensitive. For example, asset-based reserve requirements could be designed to generate more work for South African young women, and central banks could give preferential access to their discount window for financial institutions investing in or lending to entities that will generate more and better work for women.

- **Accelerating financial inclusion:** Lack of funding and resources has been identified as a major constraint for young entrepreneurs. An inclusive financial system is essential for structural transformation and work creation for youth. Policy options might encompass extending banking services to youth, particularly disadvantaged and marginalised youth (e.g. youth of colour and young persons with disabilities), and steering credit towards unserved, remote areas and targeted sectors. In South Africa, given its socio-economic diversity, extending banking services to disadvantaged and marginalised groups including women is key to generate jobs for youth. Box 5.1 describes an initiative for providing funding support to young South African entrepreneurs.
- **Promoting an enabling business environment:** Given that the private sector is often the main driver for job creation, an enabling business environment in South Africa can be put in place by removing binding constraints in access to finance and infrastructure, and in terms of regulation; or elements include providing business incentives through tax relief. Business activities that create quality work for youth in the country can be encouraged, for example, by subsidising inputs for businesses that set up in less developed areas, that provide job opportunities to disadvantaged groups, and that use labour-intensive technologies.

Box 5.1: The National Youth Development Agency, South Africa

The mission of the National Youth Development Agency (NYDA) of South Africa is to mainstream youth issues into society and facilitate youth development in all sectors of society. Its activities include: lobbying and advocating for the integration and mainstreaming of youth development in all spheres of government, the private sector and civil society; initiating, implementing, facilitating and coordinating youth development programmes; monitoring and evaluating youth development intervention across the board; and mobilising youth for active participation in civil society engagements.

NYDA partnered with the Industrial Development Corporation (IDC) and the Small Enterprise Finance Agency to assist youth-owned businesses with funding and support over a period of five years. This grant programme of ZAR 25 million offers both financial and non-financial support to qualifying young entrepreneurs between the ages of 18 and 35. A ZAR 2.7 billion fund has been set aside to kick-start young entrepreneurs in South Africa, who have the potential to create jobs and keep South Africa growing.

The achievements of NYDA are impressive: nearly 79,000 youth accessed life skills and job preparedness training; nearly 22,000 beneficiaries were supported with key fundamentals; and more than 4,000 jobs were created and sustained through grant programmes.

Source: Crampton (2019).

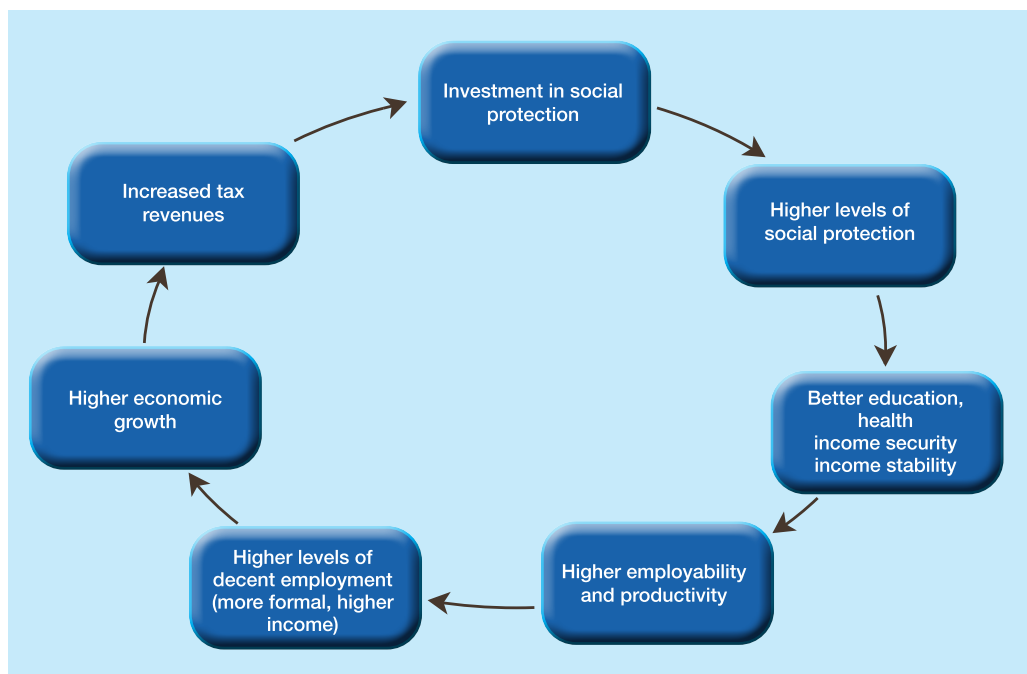
- **Adopting a regulatory framework that encourages competition, enhances efficiency, and ensures transparency and accountability for business:** Cutting red tape, battling corruption, outlawing the political use of licences and permits, and accelerating decision-making in the public sector will all help to develop businesses and attract domestic and external investment, hence frequently boosting the number of jobs.
- **Linking social sector policies with market policies:** The historical development of social security systems and the clear correlation between the results of the modernisation strategies on employment and social protection illustrate the strong link between employment status and access to social protection. The

decent work concept normatively links the *promotion of productive employment* with the *development of social protection* as two dimensions of the concept. From practical experience, positive reinforcing effects can be seen, from employment policies towards social protection levels and vice versa. There is no trade-off between economic and employment performance, on the one hand, and the development of social security, on the other hand. Employment lays the grounds for building a good social security system. In addition, social security has a beneficial impact on the economy and the labour market by providing protection for the unemployed, people with disabilities, the elderly and vulnerable groups. Hence, social security smoothens the economic cycle and provides a cushion for economic activity and even employment. Another beneficial effect is that social protection policies increase labour productivity, for instance, by providing health care and protection against employment-related accidents and occupational diseases. Finally, social services provide an important

number of jobs, usually with a high share of female employment. The virtuous linkages between employment and social protection are shown in Figure 5.1.

Social protection begins in the labour market; however, four potentially problematic areas of interaction between labour market developments and social protection systems can be identified: promoting employment; ensuring the long-term sustainability of social protection; ensuring security for the most disadvantaged; and providing decent protection for atypical workers. Social protection and employment must thus be integrated into a coherent strategic development plan at the national level in which there is an overall vision on economic and social development for the medium and long term. Usually, these strategies establish quantifiable goals to be attained within a certain period, based on current strengths, insufficiencies and potential. Indeed, three countries have a national strategic plan: Burkina Faso, Cambodia and Honduras.

Figure 5.1: A virtuous circle linking employment and social protection



Source: ILO (2013).

In Burkina Faso, the global national strategy is incorporated into the *Stratégie de Croissance Accélérée et du Développement Durable 2010–2015* (SCADD, Strategy for Accelerated Growth and Sustainable Development). In Cambodia, the overall planning instrument is the Rectangular Strategy for Growth, Employment, Equity and Efficiency, Phase II with the supporting role of the National Strategic Development Plan (NSDP), (updated 2009–2013). In Honduras, the national planning document is the *Visión de País 2010–2038 y Plan de Nación 2010–2022* (Country Vision 2010–2038 and National Plan 2010–2022). These three countries identified social protection and employment generation as challenges, and established that policies should be deployed to tackle them. Employment generation is clearly at the heart of each country's strategy, and ambitious goals regarding the extension of social protection closely follow.

5.3 Climate change adaptation and mitigation for job creation

The Government of South Africa has pledged to limit its emissions of CO₂ between 2020 and 2025. The economy is one of the most energy-intensive in the world, yet it has not been setting mitigation targets for industry. Catalysing finance and investments to enable transition to a low-carbon economy and society is a major challenge. One of the key issues in the energy sector is the transition from coal to renewable energy, due to the major implications that this has on climate change mitigation. South Africa heavily depends on coal for its energy. A drive towards shifting its electricity production to renewable energy is threatening as many as 120,000 jobs at coal mines and power plants that use fuel, according to a research consultancy. In addition, the transition could threaten economic activity in four municipalities with a population of more than 2.3 million people. Thus, it is critically important to understand the likely job creation numbers for South Africa's energy transition from coal to renewables. The coal sector generates 92,000 direct jobs and 170,000 indirect jobs throughout the lifetime of a coal power station or a coal mine.

Coal mines and power plants are more labour-intensive than renewable energy plants. Many of the coal power plants have been running for

decades, and there is a push to close them and switch to alternatives such as solar energy because South Africa emits the same amount of climate-warming greenhouse gases as the United Kingdom, whose economy is eight times bigger. The jobs lost in coal plants can be matched, even surpassed, through a properly managed and just transition to renewables.

In 2019, the Government of South Africa drafted its National Climate Change Adaptation Strategy (NCCAS). This strategy presents a vision for adapting to climate change and increasing resilience in the country. It also outlines priority areas for achieving this vision, which includes water resources, agriculture and commercial forestry, health, biodiversity and ecosystems, human settlements, and disaster risk reduction. The NCCAS serves as a common reference point for climate change adaptation efforts in the country. It also provides a platform on which national climate change adaptation objectives can be described in detail, thus providing overarching guidance to all sectors of the economy. Adaptation measures can create jobs and protect workers and income. The transition to a low greenhouse gas economy is expected to lead to a net creation of jobs. Climate change mitigation can keep future adaptation costs down and bring about net employment creation through, *inter alia*, a substantial re-allocation of labour.

5.4 Policy options for creating and enhancing youth employment opportunities

The section below outlines 12 policy options considered paramount in creating and enhancing employment opportunities for South Africa's youth.

1. **Position and promote South Africa as a prime investment destination:** The Government should continue to accelerate its investment promotion by positioning South Africa as a prime investment destination. Some of the specific activities might include: attracting both foreign and domestic investment; lowering barriers of entry and anti-competitive practices; supporting sectors that have higher poverty reduction effects, such as mining, agriculture, construction, manufacturing, tourism and tele-

communication, among others; and developing the emerging sectors or new economies, such as those in renewable energy, the digital, marine, green, rural and social economy.

- 2. Make agriculture attractive through use of technology:** Agriculture could be made more attractive to youth through the use of technology, such as robots and sensors so as to reduce drudgery and improve productivity and profitability. Technology can also drive job growth in off-farm activities, including processing, storage and distribution, as well as in related activities, such as agribusiness, agro-tourism, and mechanical and agricultural engineering. Evidence from Odusola (2021) reveals that the potential of agribusiness in South Africa by 2030 could be as high US\$75.00 billion (over ZAR 1 trillion) if upstream and downstream activities are harnessed. In many cases, youth have been spearheading agricultural technology development and dissemination, often also addressing gender and other barriers. The prospects for youth in agriculture should also improve as financial services expand and reach under-served areas and populations where they can also play a key role.
- 3. Make the informal economy more dynamic:** This requires a strategy with a broader view of informal employment. The strategy must focus on increasing the incomes and improving the conditions of workers in all segments of the informal economy. The needs of informal workers are likely to vary among different worker

groups. Nevertheless, a good start would be to ensure that the regulatory environment, basic social protections and urban infrastructure are supportive of the informal economy. Numerous policies could be implemented to support informal livelihoods such as providing access to electricity as in Durban's Warwick Junction Market (Box 5.2). Indeed, simple policies backed by effective implementation have the potential to improve livelihoods in the informal economy and to create more jobs. But this can only take place if the diversity of the informal economy is well understood.

Standards can be established, aimed specifically at tackling the informal economy in South Africa. This would be expected to help hundreds of millions of workers and economic units. The standards may be vital in protecting workers' fundamental rights; ensuring opportunities for income security, livelihoods and entrepreneurship; and promoting the creation, preservation and sustainability of enterprises and decent jobs in the informal economy. A major step forward for millions of workers is an international guidance framework to help countries address the issues of the informal economy.

- 4. Remove barriers that stand in the way of employment-led development:** It is recognised that SMEs, for example, often face biases in market entry and access to credit, and entrepreneurs may lack access to information and marketing skills. Women in particular

Box 5.2: *Asiye eTafuleni* – an accelerator for the informal economy

Asiye eTafuleni ('Bring to the table') is a non-governmental organisation (NGO) set up to support informal traders and other stakeholders who use public spaces for their work by providing design and development expertise. This has allowed them to be competitive, participate in consultations with city officials on equal terms, and at times, be taken seriously. Established in 2008, the NGO seeks to build capacity within the informal sector so that the fragile livelihoods of informal entrepreneurs can be supported by better knowledge.

To date, *Asiye eTafuleni's* main area of operation has been Warwick Junction, Durban's primary transport node, which, on an average day, accommodates 460,000 commuters and at least 5,000 street traders. The NGO serves as a learning hub for entrepreneurs and researchers interested in local urban development and planning issues regarding South Africa's informal economy. An innovative element in the organisation's profile is its street credibility, which has enabled multi-stakeholder engagement and contributed to the team's diversity: a mix of architects, social scientists and informal traders. The mix provides a balanced and grassroots platform for any type of urban intervention.

Source: Dobson and Skinner (2009).

face barriers in access to capital, technology and credit. Removing these barriers requires multiple levels of support to improve the productivity and income of these enterprises from all types of regulatory regimes and public and private institutions. In addressing credit, finance, training and skills development, South Africa can, for example, formulate self-employment programmes as a critical part of its national employment plans.

5. **Expand and ensure the development of high-quality infrastructure:** Expanding telecommunications and internet infrastructure, as well as transportation arteries and access to clean energy can immensely improve work options for South African youth in rural areas. This action can also enable them to expand business activities and investment. It has been shown that mobile phones for poor female entrepreneurs have revolutionised their work and created more jobs.
6. **Strengthen the links between SMEs and large capital-intensive firms:** Whereas SMEs are typically labour-intensive, large firms are typically international and also capital-intensive. Strengthening the relationships between these two can help change patterns of growth by shifting resources to sectors with greater value-added and job creation potential. This strategy can be implemented, for example, through industrial clusters supported by public investment. These networks can increase access to capital and technology, and promote the transfer of skills. Lowering interest rates and providing credit guarantees and subsidised credit to

SMEs and export-oriented sectors while taking into consideration youth employment can stimulate South Africa's economy. These measures can help promote productivity and employment growth and can bear fruit quickly. In Rwanda, for example, a credit guarantee scheme enabled the country to become a major exporter of specialty coffee.

7. **Promote formalisation and development-oriented policies for SMEs:** The Government of South Africa must promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation while also encouraging the formalisation and growth of SMEs, including access to financial services. The country needs to continue with its reforms aimed at improving the ease of doing business and lowering the cost of starting businesses. There is also a need to ensure that SMEs benefit from the skills development support offered through the Sector Education and Training Authority. The Department of Small Business Development (DSBD), together with the Department of Planning, Monitoring and Evaluation (DPME), is implementing an integrated strategy on entrepreneurship promotion to support youth entrepreneurs.
8. **Support youth-focused hiring and employment:** The Government is typically a large-scale employer and can therefore set the tone for youth-focused hiring and employment. More broadly, it can create legal and policy frameworks that actively encourage the hiring of youth. Incentives that directly address the cost

Box 5.3: An example of incentives for private firms

The Government of South Africa introduced a Youth Wage Subsidy, which provides an incentive for private firms to take on first-time job-seekers by subsidising the cost of recruitment. The Government continues to support *learnerships*, (a model that combines theoretical training, experiential learning and on-the-job learning) by offering tax breaks to companies hosting learners.

More recently, the Government has made the same incentives available for internships and apprenticeships together with a target that 5 percent of its own workforce should be interns, learners, or apprentices. As South Africa's biggest employer, with around one million employees, this opens up at least 50,000 job opportunities for first-time work seekers.

Source: Shankar, Cooper and Koh (2016)

and risk of hiring youth, and that are easily accessible by employers can be a powerful tool. The Government can fulfil an important coordination function by bringing together relevant stakeholders to direct activities towards the shared goal of lowering youth employment (Box 5.3). In addition, in wage employment, private sector support is only powerful and sustainable when driven by business imperatives. Employer commitment should therefore encompass senior management buy-in and practical implementation capacity and willingness.

South African youth not only require financial support, but also other kinds of assistance, such as business advice, guidance and mentoring. In the country, there are 340 organisations providing entrepreneurial support to young entrepreneurs. For example, in 2017, the Alan Gray Orbis Foundation supported 48 businesses, which had a combined value of over ZAR 1.4 billion. Today, it has grown to 62 businesses, valued at ZAR 1.6 billion.

Businesses are also working towards employment equity targets, which translates into more inclusive hiring practices. Internationally, the drive towards more inclusive hiring, including the recruitment of disadvantaged youth, is slowly gaining traction based on evidence-driven advocacy campaigns that highlight the business benefits of such practices. In South Africa, primarily due to the Broad-Based Black Empowerment (BBEE), these practices have become standard in most companies. In fact, many South African firms struggling to find and retain entry-level talent have taken this practice one step further and have created training and development programmes that target disadvantaged youth.

9. Youth skills training with occupations at the core:

The Government has increasingly focused on a youth skills development strategy and framework that places occupations at the centre of learning and qualification design. If rolled out successfully, this could go far in eliminating the current systemic skills mismatch. Training providers increasingly recognise the need to better align their training offering with private sector demands. This takes many forms, including: adapting courses to market demands; shaping curricula with private sector input; and designing qualifications that more closely match industry needs.

Research shows that trainees from poor and disadvantaged backgrounds struggle to translate their training into livelihoods, and that a critical requirement to unlock the value of training lies in providing a direct link to a job. In line with these findings, a new breed of training provider has emerged that embeds market demands in the training model by combining theory and experiential learning, and works with businesses to place trainees in jobs upon completion of training.

- 10. Implement the PPP framework:** South Africa already has a legislative framework for implementation of PPPs. However, there is a need to expand and deepen its implementation. As other jurisdictions have shown, PPPs can be the drivers for establishing quality infrastructure as a necessary condition for spurring economic growth, employment creation and poverty reduction. Sectors that are suited to PPP infrastructure projects include energy, transport, water and sanitation and ICT, among others. The Government can also explore the possibility of involving the private sector in building smart

In the country, there are **340 organizations** providing entrepreneurial support to young entrepreneurs. For example, in 2017, the Alan Gray Orbis Foundation supported **48 businesses**, which had a combined value of over **ZAR 1.4 billion**.

cities and developing new industries such as the green, social, marine and digital economies.

11. **Extend help to new and innovative businesses:** Young entrepreneurs often pursue non-traditional and new initiatives. They also have the vision, dynamism and creativity to realise them. Nevertheless, they require help and guidance from the Government and other organisations. Support is also needed to mitigate the risks associated with these kinds of initiatives.
12. **Focus on green jobs:** South Africa is making great strides towards an inclusive low-carbon transition. There could be an increasing number of opportunities for youth in the green economy. In fact, green jobs provide a great potential for addressing the issue of South African youth unemployment. Green jobs for the youth of South Africa are promising in various sectors, but notably in agribusiness construction, social economy/social enterprise development, tourism and waste recycling. The Clean and Green Deeds Campaign in South Africa to create awareness on waste management is also one example of a PPP. Moreover, support is also being provided for developing an Integrated Waste Management Plan for Manguang Metro Municipality. In 2020, South Africa set up a green jobs dialogue series called “Green Jobs for a Better Future”, which is an indication of the promise in this sector.

5.5 Four key strategic actions for seizing the opportunities

This section summarises the four necessary strategic actions that need to be carried out in order for South Africa to seize the opportunities identified and discussed in the preceding sections.

- **Provide access to lifelong learning and upskilling for NEETs:** South Africa currently faces a challenge of a high number of NEET youth. The number of youth entering the labour market with basic skills is increasing, and unemployment is unsustainably high. If this situation is not urgently addressed, it will perpetuate the problems of unemployment, inequality and poverty. In addition, if the youth unemployment situation becomes dire, this may lead to crime, political problems and civil unrest, as was seen

in KwaZulu-Natal in July 2021. There is thus an urgent need to improve access to lifelong learning and open up Community Education and Training colleges for many school dropouts and NEETs. The basic set of skills needed to enter the workforce and be successful will be essential. They include skills such as time management, personal presentation and job-seeking, as well as literacy, numeracy, digital literacy, resume/CV writing, self-presentation, professionalism, etiquette and social norms, among many others.

- **Promote STEM subjects:** There is need to develop a national programme aimed at encouraging and promoting the study of STEM subjects right from primary levels of education. This will position the country to take advantage of the 4IR and produce graduates who are both entrepreneurial and employable. It is important for the *Presidential Commission on the Fourth Industrial Revolution* to develop socio-economic policies to help the country recover from the global COVID-19 pandemic while also taking advantage of the 4IR emerging technologies to advance its broad development agenda. This could involve the identification of occupations at risk, the emerging occupations, and strategies on how to equip current and future workers for the 4IR.
- **Change the educational curricula in readiness for the next phase:** For a structural change in the South African economy from primary labour-intensive industries to tertiary and capital-intensive sectors, the country's education system should shift accordingly to have adequate human capital for the next phase of its development. This will be characterised by higher levels of economic productivity through diversification, technological innovation and high value-added sectors. The COVID-19 global pandemic disrupted the world of work, which many companies are re-imagining into the 4IR and possibly, the 5IR.
- **Acquire non-tradable 21st century skills:** Three of the world's ten largest employers are replacing workers with robots. An estimated 57 percent of jobs in the OECD countries are at risk due to automation. The world is also moving towards a knowledge economy so that low-skilled and marginal workers are losing their livelihoods.

The European Union was expected to add 16 million new jobs between 2010 and 2020, but the number of jobs available for people with little or no formal education was anticipated to decline by around 12 million. As some jobs disappear, new jobs emerge in non-tradable sectors such as education, health care and public services, which are also fundamental to enhancing human development. Workers should be educated for and guided towards these jobs. For example, skills can be developed that enable workers to transition to sustainable employment in the green economy, solar energy and wind power. This scenario, which is also true for the South African economy, would require acquiring skills for 21st century work (Figure 5.2). A system for acquiring skills that is fit for the future can be designed and implemented starting from secondary school and continuing through to tertiary education levels. In addition, an emphasis on STEM may be necessary, some flexibility in the curricula of the learning system is crucial; hence, training should provide multi-tasking skills and the agility to move from one line of activity to another. Workers whose livelihoods are threatened can transition to jobs at similar and higher levels with the aid of wage subsidies and temporary income support.

Both soft and hard skills are required for the 21st century. Soft skills include the ability to interact, communicate and collaborate with colleagues, customers and management. As humans increasingly work alongside robots, uniquely human skills, such as creativity, com-

plex problem-solving, emotional intelligence and critical thinking, will be irreplaceable by machines. These human skills include collaboration, adaptability, initiative, leadership, social emotional learning, teamwork, self-confidence, empathy and cultural awareness, among others.

In contrast, hard skills include knowledge and the ability to perform job-specific tasks. Since new job opportunities are being created through technology, they often require industry-specific technical skills and targeted training. Entrepreneurship for South African youth requires knowledge and the ability to create and build opportunities for setting up a business and start-ups, freelance work, or developing as a self-starter within a work environment.

5.6 Making the case for targeted interventions for marginalised groups

Irrespective of the overall policy net or the policy matrix, some groups of people will not be included, but will remain outside of the general policy framework. These groups include persons with disabilities, women entrepreneurs, vulnerable groups and certain ethnic groups. Focused, targeted interventions are therefore required for these groups as outlined below.

- 1) **Targeted support for young black entrepreneurs:** Black South African youths face greater challenges and greater hurdles to success than any other racial youth group in the

Figure 5.2: Skills for the 21st century

Ways of thinking	Tools for working	Ways of working	Skills for living in the world
<ul style="list-style-type: none"> Creativity Critical thinking Problem solving Decision making Learning 	<ul style="list-style-type: none"> Information and communication technology Information literacy 	<ul style="list-style-type: none"> Communication Collaboration 	<ul style="list-style-type: none"> Citizenship Life and career Personal and social responsibility

Source: UNDP (2016).

country. For this reason, this group needs targeted, focussed attention. The strategies for supporting them will have to start at school, with greater attention to all aspects of their education. Equipping them with 21st century skills would involve extra efforts. Since they represent some 79 percent of the young workforce, attention to them must be a national priority. The Government has put in place *Broad-Based Black Economic Empowerment* (BBBEE) which underscores the State's ambition to address the challenge of youth unemployment, in general, and black youth unemployment, in particular. The BBBEE encourages more inclusive hiring practices by measuring the number and professional level of black employees in a firm (management control, employment equity). It also provides incentives for the development of black youth's skills to support workplace transformation by requiring that a substantial portion of skills development investment benefit unemployed black people. The skills development pillar of BBBEE is a priority element, where non-compliance can be punitive. The compliance target for skill development has also doubled, requiring companies to spend 6 percent of their payroll on it. The *National Empowerment Fund* (NEF) is a driver and thought-leader in promoting and facilitating black economic participation, particularly young black South Africans. Its vision is to become the leading

provider of innovative transformation solutions for an economically inclusive South Africa. In pursuit of its mandate, the NEF provides financial and non-financial support: innovative financing products to black-empowered businesses, with a focus on young entrepreneurs, and non-financial support to black-owned and -managed businesses, thereby promoting a culture of savings and investment among black people (Box 5.4).

- 2) **Promote young women entrepreneurs:** Women are major drivers of development. Indeed, no development can be sustainable when women, who make up around half of humanity, are ignored. In South Africa, women currently own 72 percent of micro-enterprises. A report by the Small Business Institute in South Africa estimates the total number of these enterprises at one quarter of a million, far from the previous estimates of 5.6 million. Starting a business is always challenging, and even more so for women entrepreneurs; thus, they need targeted support (Box 5.5). Government and private enterprises have put in place programmes and funds aimed at empowering South African women. Despite harsh economic conditions in South Africa, due to this support, a number of South African female entrepreneurs under 30 years of age have continued to make a difference (Box 5.6).

Box 5.4: Impacts of the National Empowerment Fund

The National Empowerment Fund (NEF) has had a notable impact on the lives of many South Africans through the targeted intervention of disbursing funds to previously disadvantaged communities. The Trust has disbursed a total capital of ZAR 7.020 billion to the designated groups since its inception in 1998. The sectoral assessment shows that the service sector accounted for around 13.3 percent (ZAR869 million) of the NEF total disbursement to businesses owned by black people. Over ZAR 3.7 billion were repaid by investees. This was followed by construction and material industry, at about 13 percent (ZAR849 million) as well as the energy and retail industry, at around ZAR 588 million and ZAR406 million, respectively, over the same reporting period.

Hundreds of thousands of direct and indirect jobs have been created and supported over the years. The actions of the NEF have been centred on eradicating unemployment, poverty, and inequality. Since its inception, NEF has supported 101,163 job opportunities, of which 68,989 were new; and 147,882 people were reached in villages and townships through community interactions.

Source: National Empowerment Fund (2021).

Box 5.5: Some initiatives that support women entrepreneurs in South Africa

- The Isivande Women's Fund
- Women Entrepreneurial Fund (WEF)
- Business Partners
- Women in Business Fund
- Identity Development Fund Managers of South Africa
- Enablis Acceleration Fund
- The National Empowerment Fund (NEF)
- Absa Women Empowerment Fund
- Women in Oil and Energy South Africa

Source: Crampton (2019).

Supporting youth with disabilities: Essentially, youth with disabilities also need targeted interventions for their employability as well as an environment that is conducive to productivity and creativity. Positive steps towards achieving this include ensuring skills and vocational training, expanding their access to productive resources (e.g. finance for self-employment) and providing information over mobile devices. More efficient information flows and infrastructure can help them obtain work and help employers take advantage of this segment of society. In South Africa, initiatives are emerging to provide support to youth with disabilities. For example, in a partnership with *Epilepsy South Africa*, Total South Africa (an energy company that manufactures and sells a full range of petroleum products to the retail, commercial and industrial markets in the country) has awarded a substantial financial contribution to the organisation's economic development and empowerment programme for South Africans with epilepsy and other disabilities (Box 5.7).

Box 5.6: Epilepsy South Africa, a non-governmental organisation supporting youth with disabilities

The Action My Business Growth (AMG) Programme implemented by Epilepsy South Africa was originally developed specifically for women entrepreneurs. With approval from the International Labour Organisation (ILO), the Programme was later adapted to suit the needs of protective and/or sheltered workshops for people with disabilities, as well as income-generation projects in communities.

Since income-generation projects have achieved little in providing economic and financial independence for people with disabilities, the adapted AMG Programme provides the opportunity for participants in these projects to identify the growth potential of their businesses as a pathway to economic viability and sustainability, leading to increased earning potential for the members. With the financial support of Total South Africa, Epilepsy South Africa has been supporting youth with disabilities.

Source: Jahan (2019b).

There is also a need to encourage a shift in behaviour towards youth with disabilities and technology can enhance their capacities. Social norms and perceptions need to be changed to provide youth with disabilities with fair work opportunities. This fundamental measure should be backed by a legal framework that discourages discrimination.

5.7 Capturing the demographic dividend through emerging IWOSS sectors

It has been shown that the IWOSS sectors offer the greatest potential for youth employment in South Africa. However, a demographic dividend

Positive steps towards **achieving support** to youth with **disability** in South Africa include **ensuring skills** and **vocational training**, **expanding their access to productive resources** (e.g. finance for self-employment) and **providing information over mobile devices**.

cannot be realised in the country if its youth are not employed. The relevant question in the context of the demographic dividend therefore revolves around the kind of strategy South Africa can use in order to accelerate structural change using the IWOSS sectors and making them more conducive to youth employment. The constraints to growth of IWOSS sectors described earlier in this report provide insights into how governments can begin to develop a strategy for structural change. Since the determinants of the choice of location are interdependent, structural change largely depends on the extent to which the Government can pursue public actions to address multiple constraints simultaneously. Four policy actions need to be considered for enabling growth and job creation in the IWOSS sectors in the country:

- **An enabling environment:** Facilitating an enabling operating environment in which firms can thrive across the economy is vital.
- **Skills development:** Developing and/or upgrading relevant skills that will support the growth of IWOSS sectors is just as vital.
- **Inclusive policies:** All policies aim at growing the economy and the IWOSS sector must be inclusive.
- **IWOSS sector-specific policies:** Policies that focus on enabling the growth of specific IWOSS sectors must be crafted and implemented and address the specific constraints faced by them.

5.7.1 Developing infrastructure

Three aspects of the investment climate in South Africa are particularly relevant to IWOSS: infrastructure, skills and the regulatory environment. It is important that there be adequate investment in the most suitable types of infrastructure. In this regard, municipalities have great powers in choosing how to spend the money allocated to them on infrastructure. However, many municipalities consistently underspend this money. Therefore, as a first policy priority, institutional capacity at the municipal level must be increased, especially in the engineering and town-planning departments. Second, the current emphasis on infrastructure development is on building new infrastructure with emphasis on quantity rather than quality. A greater amount of money should, however, be allocated to the

maintenance, rehabilitation and upgrading of existing infrastructure. Finally, transnational infrastructure development, which is key to facilitating economic integration between countries, should be a policy priority. Currently, there is a corridor of three South African provinces, namely: Gauteng, Limpopo and Mpumalanga, with Maputo, the capital of Mozambique. However, this corridor only includes two countries. To realise developments that involve more countries, institutional capacity in organisations such as SADC and the Southern African Customs Union must be improved and appropriate financing arrangements put in place.

5.7.2 Improving and upgrading skills

Skills deficits, especially among youth and particularly in soft and digital skills, may limit the job-creating potential of IWOSS. A demand-led approach to qualifications through collaboration between employers and post-secondary educational institutions can be effective in addressing these skill gaps. Because skill requirements differ across sectors, businesses must be regularly consulted. To address digital and soft skills deficits, employers can develop mentorship and training programmes for the new trainees. These programmes are also a way in which the specific skills required in a sector can be learned. Mentors can teach life skills to youth and highlight areas of strength and areas for improvement. Because they usually hold more senior positions at a company, they can help new trainees understand the skills required to reach such a position.

5.7.3 Strengthening the regulatory environment

It is essential to encourage an environment where firms are compelled to improve productivity. Competition affects productivity through the demise of less efficient firms and the establishment or expansion of their more efficient counterparts. These issues underscore the importance of competition policy. *First*, import competition, including from within regional economic communities, can be used to discipline local manufacturers and service providers. *Second*, removing barriers to foreign entry can increase competition, reduce costs, and extend access to a broader range of services. Foreign direct investments are a particularly important channel for the transfer of know-how and technology.

5.7.4 Government spending

Lower-than-expected revenue collection from a combination of slow economic growth, high unemployment and a shrinking tax base has forced the Government to lower its expenditure. In this regard, a zero-based budgeting approach has also been suggested for South Africa, which requires each government department to justify their budget each year, rather than use the previous year's departmental budget as a starting point for budget negotiations. This requirement offers the opportunity for higher allocations for projects if their returns on investment are high enough, and also creates the possibility that budgets will actually be lowered. The risk of corruption at all levels in the public sector (and the loss of public funds) has not disappeared in South Africa; hence, a multi-faceted approach is required, which includes accountability, a meritocratic public service, and strongly funded and supported anti-corruption bodies, such as the *National Prosecuting Authority*.

5.7.5 Policies that enable the growth of specific IWOSS sectors

Between 2010 and 2018, formal private tourism employment grew by 26.9 percent, from 669,000 to 849,000 workers. Considering the relative size of the industry in terms of employment, this impressive figure reinforces the importance of tourism as a sector with potential to generate a large number of new jobs, especially low-skilled ones that can benefit youth. The multifaceted nature of tourism requires that the many different parts work together efficiently. In particular, private-public cooperation is vital to secure the future of the tourism industry. Tourism markets must be actively developed and promoted in less established areas. Current tourism marketing is focused on promoting South Africa's established tourism markets in Cape Town, Johannesburg and Durban. The little attention paid to less-developed tourist regions limits the growth of the industry more broadly and excludes disadvantaged individuals from the tourism sector. More active development of, and marketing for these smaller markets, especially with increased support from South African tourism, can encourage travel to these outlying markets.

Crime prevention strategies, especially in tourist hotspots, must be enhanced. To this end, the tourism

industry and the country's security apparatus, including the South African Police Service, the metro police and the private security industry, must coordinate more closely. Leaders should also examine lessons learned from other countries that have successfully tackled crime threatening their tourism markets.

A world-class e-visa system must be developed and implemented. An easy-to-use interface, multiple languages support, straight-forward documentation requirements and quick turn-around times for visa applications will increase ease of access to South Africa as a tourist destination. The Government could also develop a national air access route initiative that incentivises airlines to add new routes and increase the capacity and frequency of flights.

Between 2010 and 2018, formal private employment in horticulture increased from 243,000 to 331,000, i.e. 36.2 percent, and 1.4 times greater than the overall agriculture sector. Future growth is expected in key export markets as the middle-class expands, especially in Asia. The potential of horticulture for employment generation has attracted the interest of policymakers, who have committed to pursuing several policies: expanding irrigation infrastructure so that the horticulture growing area can be expanded by 50,000 ha; assistance for exporters to obtain various product quality certifications; and the designation of a horticulture representative on a committee investigating the improvement of transport links between areas of production and export hubs. Horticulture has many job opportunities for low-skilled youth, in particular.

Comprehensive water infrastructure development should be implemented. South Africa experiences extreme *dry years*, which create intense water shortages. As such, policymakers should increase support for projects that expand the storage capacity of South Africa's dams, maintain the upkeep of water irrigation schemes, and more efficiently utilise its current water reserves. Sufficient financial aid must be allocated to the agriculture sector in order to mitigate shocks such as drought and pests caused by the severe climatic conditions that face the country's agriculture sector. Furthermore, it is necessary to develop affordable, specialist insurance products that cover natural disasters.

To encourage new entrants into the industry, the Government should partially subsidise the high input costs, which impede emerging farmers from entering new markets, resulting in a highly concentrated industry that will not provide additional employment opportunities for youth.

Between 2010 and 2018, formal private employment in agro-processing increased by 43,000, i.e. 8.0 percent over the period, which was a stark contrast to the overall manufacturing sector, which decreased by 3.1. The fact that the agro-processing sector was able to generate jobs as a sub-sector when the overall sector is shrinking indicates its resilience in the face of economic difficulties; when more favourable economic conditions return, it can be expected to experience faster growth.

A comprehensive incentives programme for imported agro-processing equipment and inputs must be created. Incentives could take the form of a reduction in the value-added tax and/or import duties on specified equipment and inputs such as fertiliser. Furthermore, given the major role that agro-processing plays in exports in the South African economy – accounting for 10 percent of South Africa's total exports – policymakers should explore the feasibility of an Export Processing Zone for agro-processing to further increase exports.

Coordination must be enhanced between the public and private spheres in relevant technology. Most equipment and inputs used in agro-processing are expensive because they are imported. To reduce this reliance on imports and enhance competitiveness, it would be worthwhile for the Government to facilitate technological transfers between publicly funded research institutions, such as universities, and the private sector, which can utilise these inventions. To aid small businesses in overcoming stringent food safety standards, government-funded training programmes can be created. This is particularly important for small businesses that have low (or no) food safety standards to help them obtain exacting standards in a short period. The same food safety standards can be made compulsory in both the domestic and the export market.

Between 2010 and 2018, the logistics sector experienced robust employment growth, with formal

private employment increasing by 31.3 percent, from 332,000 to 436,000 employees. South Africa's logistics sector is advanced compared to most in the region. A 2018 Price Waterhouse Coopers report found that South Africa had the most developed logistics sector compared to nine other African economies. The country was also rated the highest in Africa for its trade facilitation logistics and transport infrastructure. Therefore, South African logistics companies are well-placed to expand to the rest of Africa more broadly and take advantage of the surge in demand for raw materials.

An integrated approach to the logistics sector should be taken; the logistics sector should not be treated as operating, but rather, integrated with many others, such as agriculture, mining and manufacturing. In South Africa, this move would require a coherent national strategy for the sector as well as mechanisms to ensure that it is integrated with others in the economy. Regulations that increase the difficulty of doing business must be eliminated, and technologies that make businesses more efficient should be adopted. There should be cooperation with global organisations to reduce the number of obstacles such as trade restrictions and high tariffs that hinder the free flow of goods through these countries. The primary instrument to achieve this goal would be to sign Free Trade Agreements (FTAs), which remove barriers to trade between their signatories. The transportation and logistics infrastructure is another factor hindering the prospects of the African Continental Free Trade Area, either in the formation of regional manufacturing supply chain clusters or in growing e-commerce.

5.7.6 Developing skills to support the growth of IWOSS sectors

There are two possible implications regarding skills requirements of increased growth in the IWOSS sectors, which depend on the type of IWOSS activities in focus. When IWOSS growth occurs in sectors that favour low-skilled employment, skills do not need to be formally developed. Conversely, IWOSS sectors that offer opportunities for low to medium, and then high-skilled employment require a labour pool with a range of skill levels. For occupations that require either an undergraduate or postgraduate university degree, there may be challenges in finding youth with

these specific educational qualifications. In order to ensure a sustainable supply of people, therefore, individuals must be educated to the required levels. Moreover, there should be a demand-led approach to the attainment of qualifications best achieved through a collaboration between employers and post-secondary educational institutions. Employers can provide input regarding their skills requirements so that youth can obtain qualifications that are valued in the labour market. Since skill requirements differ across sectors, businesses across all sectors must be regularly consulted. This consultation is particularly important in an era in which significant changes in the labour market are expected to occur because of the 4IR.

But providing better qualification support alone is not enough because there are soft skill gaps in different sectors and occupations, as demonstrated in the firm surveys. Profound changes in the nature of work will increase the value of soft skills in the future as employers look for individuals who are proactive, collaborative and adaptable. As the firm surveys show, youth, including those employed, often lack not only formal qualifications, but also soft skills. Some measures to help increase the number and intensity of soft skills include the following:

- **Compulsory courses:** It is important to include compulsory courses on public speaking, written and verbal communication in all post-secondary schooling courses. All students can benefit from developing skills such as listening, using eye contact and communicating ideas in a coherent manner.
- **Volunteerism:** Promoting a culture of volunteerism at secondary school and post-secondary educational institutions can help youth develop skills such as teamwork, time management, and written communication. Further, it can teach youth the importance of performing tasks without any expectation of personal gain.
- **Extracurricular teamwork:** Extracurricular teamwork activities should be encouraged. These activities can range from team-based sports to participation in religious institutions or music bands, which can teach youth the importance of working together to achieve a goal.
- **A mandatory National Youth Service Scheme:** Implementing a mandatory National Youth

Service Scheme for tertiary institutions graduates will provide opportunities for soft skills development while addressing the limited work experience. It will further reduce the cost of correcting the skill mismatch for tertiary institution graduates.

- **Mentorships and training programmes:** Encouraging employers to develop mentorships and ongoing training programmes for new trainees where the mentors can teach life skills to youth and highlight areas of strength and those that require improvement. Moreover, mentors usually have senior positions in a company and can therefore help new trainees understand the skills required to reach their position, particularly those that they may not have been able to develop through the school system.

5.8 Inclusive growth through policy actions targeting the most vulnerable

When considering the policies described above, policymakers must consider the differing impacts that they can have on under-represented groups such as youth, and incorporate the needs of these groups into national development strategies. Policies need to incorporate channels through which those who remain excluded from participation in the economy (such as youth) are specifically targeted. A good example is tourism, which needs to be developed in areas where there are no established tourism markets. Tourism can also be developed in areas where youth are actively targeted and supported to obtain the skills required in the IWOSS sectors so that they can capitalise on employment opportunities. In this regard, the legal environment can be used to achieve socially inclusive outcomes. Such outcomes include: affirmative action measures in hiring practices; equal pay for equal work; and higher education opportunities, which are all policy levers available to policymakers. Some of these policy measures are already part of South Africa's labour legislation but ultimately, it is important that there is buy-in from all sectors of society in order to achieve inclusive growth. The development of inclusive growth policies in collaboration with the private sector is important in facilitating an environment in which collaborative action can be taken by all relevant stakeholders to achieve the desired outcomes.

5.9 National youth service schemes targeting the youth employability challenge

In Africa, the context of the national youth service schemes has evolved over the years and has taken several forms. The dynamics, context and scope of the national youth service schemes vary across regions and countries. They range from schemes adopted in the 1960s and 1970s (e.g. in Algeria, Ghana and Nigeria), to those adopted in the 21st century (e.g. in South Africa, Zimbabwe, Zambia and United Republic of Tanzania). Some countries have mandatory programmes such as Algeria, Eritrea, Ghana and Nigeria, and others have voluntary services (e.g. Botswana, Côte d'Ivoire, Kenya, Rwanda, and Senegal). There is a range of age groups and target groups comprising pre-bachelor students (e.g. graduates of high school, colleges and technical schools) and graduates of tertiary institutions (universities and polytechnics). Some schemes are military-based (e.g. Algeria and Eritrea), or have short para-military training (e.g. Kenya, Nigeria and Zimbabwe); others have no military-related training. The programmes also range in duration, from three months to four years. The variation in scope and target groups accounts for the number of youth mobilised in these programmes, from 5,000 in Burkina Faso to 300,000 in Nigeria in 2021.

5.9.1 South Africa's Voluntary National Youth Service Programme

The South Africa's National Youth Service Programme (NYSP) is voluntary and aims at engaging youth in community services targeted at: building civic responsibility; strengthening service delivery; building patriotism; promoting nation-building; fostering social cohesion and a common identity while helping youth acquire the necessary occupational skills that can enable them access employment and sustainable livelihood opportunities.

The South African NYSP is based on a hybrid approach categorised into three groups. The first group involves the unemployed, out-of-school and unskilled youth, while the second involves high school learners and university students in community service while studying. The third group involves ad hoc opportunities for community volunteers.

Each NYSP has contributed to youth empowerment in several ways. For instance, the Youth Employment Service (YES), a partnership among public, private sectors and CSOs targeted at previously disadvantaged youth (18–35 years) to gain work experience for one year, has generated over 69,000 quality work experiences and 33,986 job opportunities. As of March 2017, the *Employer Tax Incentive* (ETI), a wage subsidy programme that provides tax incentives to employers (through a reduction in PAYE within two years) for training young job seekers aged 16–29 benefited from 645,973 jobs for youth. The ETI saved a total of 35,333 jobs between 2014 and 2016. Small firms employing fewer than 10 employees experienced the greatest benefit from the ETI. The *National Rural Youth Service Corps* (NARYSEC), established in 2010, is another skills development and employment programme for youth, targeted at unemployed rural youth aged 18–35 years having at least a standard Grade 10 certificate. The programme has trained over 25,200 youth in vegetable gardening, livestock, dairy production, soil sampling and construction.

5.9.2 Lessons learned from Ghana and Nigeria's mandatory youth service schemes

1. **Coordination:** Albeit crucial, the main defining factor is effectiveness. While in Ghana and Nigeria, the national scheme is under a parent agency (Education in Ghana and Youth and Labour in Nigeria); in South Africa, it is under the Presidency, which appoints its Board members and the CEO.
2. **Financial sustainability:** Ensuring financial sustainability of the programme is critical and can be achieved by protecting the national youth service scheme through a legislative and constitutional framework. The Ghanaian model of cost-sharing among the federal government, parastatals and the private sector may be appealing. An important consideration with a strong link to financial sustainability is the maintenance of a lean management structure. The lean structure of the Ghanaian Board, with a CEO, two directorate levels and field-based staff in each of the ten regions, is a good example of efficiency.
3. **Using the scheme to promote social cohesion and nation-building:** Given the heterogeneous

nature of the South African society, there is a strong need to use the scheme in promoting social cohesion and nation-building just as in Nigeria, which has similar heterogeneity. In addition, motivating service personnel to be active in rural areas, as in many African countries where this scheme is operational, is pivotal. In South Africa, the programme goals should be well structured to effectively combine nation-building, social cohesion, employability, entrepreneurship and livelihoods. The target groups for consideration are tertiary institution graduates and the age limit should be based on stakeholders' preference. Drawing on the lessons learned from similar programmes in Ghana and Nigeria, it is hoped that this programme can help develop vital youth assets and capabilities such as character, competence, confidence, connectedness and citizenship.

Overall, the partnership with the private sector, CSOs, universities, development and international partners, as well as the programme's alumni will be critical in maintaining the relevance, efficiency and effectiveness of the programme. Furthermore, instituting a comprehensive mode of consultations and communication with all stakeholders will enhance the ownership of the different initiatives. South Africa should also learn from other countries about how these schemes have maintained their financial autonomy, including from the budgetary allocation and income-generating activities.

5.9.3 A mandatory National Youth Service Programme for South Africa

As indicated above, youth unemployment and employability have reached a crisis point in South Africa, which is manifested in several forms, including the prevalence of gender-based violence, femicide, and the July 2021 political unrest in KwaZulu Natal and Gauteng Provinces.

A complex development challenge requires a non-conventional solution. It calls for a compulsory NYSP for all youth in the targeted group. Dedicating a special programme to an age group that accounts for more than one-third of the population is very important, not only because of the practical opportunities it creates, but also because it shows

that the country cares about its youth. Moreover, a compulsory NYSP could provide career guidance, inculcate a culture of citizenship and help socialise and promote sustainable entrepreneurship and livelihoods for youth.

In order to have a mandatory NYSP, it is imperative to eliminate the culture of 'whom you know' rather than 'what you know'. As in many African countries, a mandatory scheme for South Africa will weaken the culture of a complex array of familial, ethnic, political and religious connections in job placement, particularly for the employability of tertiary institution graduates. Examples from Nigeria and Ghana have shown the power of mandatory youth schemes in creating equal opportunities among all youth in the transition from tertiary educational system to the labour market. In these countries, this has occurred, irrespective of whether they are from rich or poor families, rural or urban settlements, or different political, religious and tribal backgrounds.

A mandatory youth service scheme provides youth with a starting point to obtain work experience in a paid entry-level job. It will increase the labour market absorption rate for tertiary graduates, which has been affected by a lack of sufficient work experience and limited problem-solving, business acumen, communication and technology skills. It will also help reduce the erosion of skills, the loss of human capital, and the deceleration in human development, which is often associated with prolonged joblessness. This initiative is invaluable in addressing the mismatch between the educational system context and labour market realities. If well-leveraged, it will lay the foundation for climbing up the career ladder, which will otherwise only be possible for privileged and well-connected youth, a phenomenon that leaves most South Africa youth behind in employability.

The youth need multiple pathways to support their transition to adulthood and the world of work to become productive change agents. And given the triple development challenges, a voluntary approach will not produce the optimal results. One of the pathways, therefore, is a mandatory national youth service scheme that can address nation-building, social cohesion and employability while harnessing social and human capital for growth and development. This would allow South Africa to develop its youth's capabilities as part of a long-term solution to high

poverty, inequality and unemployment. South Africa has solid experience in implementing mandatory services. Indeed, the introduction of compulsory community service for health graduates laid the solid foundation for a mandatory National Youth Service Scheme as in the Ghana and Nigeria models. Also, the NARYSEC provides the core element of the Ghanaian, Kenyan and Nigerian model, which will not require starting anew, as occurred in Malawi and Sierra Leone.

5.9.4 Issues to consider before implementing a mandatory youth programme

The inclusive approach that allows many people to be covered irrespective of race, tribe, religion and political linkage, nevertheless poses its own challenges. First, the approach is resource-intensive, which could affect its long-term sustainability if not well-managed. Nevertheless, if the programme is run efficiently and effectively, the benefits outweigh the costs, including solving the financial sustainability issue. Some lessons can be drawn from Sierra Leone's approach, which first started as a voluntary initiative between 2018 and 2021, and then made mandatory from 2022. The financial sustainability of most African countries (except for those that enshrined their NYSs schemes into their constitutions, such as Ghana and Nigeria), is that the financial sustainability has been based more on

political will through budgetary allocations, which explains why some of the NYSs could not stand the test of time.

An important lesson for South Africa is therefore to start with a voluntary idea for the first 2–3 years, and based on this experience, turn the programme into a mandatory model. Given the intensity of the three critical development challenges in the country, anchoring the NYSP with a formal legislative framework could be a critical first step to ensuring a strong political will and buy-in from the political class. This would also help in ensuring that the scheme does not suffer from the financial whims and caprices of the political class. In addition, South Africa already has solid experience, notably, in the NARYSEC, the one-year medical school graduates' community service, and *the use of graduates of tertiary institutions to run tutorial programmes for historically disadvantaged schools*. These three experiences, combined with lessons learned from Ghana and Nigeria, as outlined above, provide the context-specific programme design and implementation frameworks. Commissioning a feasibility study with the involvement of stakeholders is an important next step in taking the process further. A possible strengths, weaknesses, opportunities and threats (SWOT) analysis of the South Africa NYSP is shown in Figure 5.4.

Figure 5.3: A strengths, weaknesses, opportunities and threats (SWOT) analysis of the National Youth Service Programme of South Africa



5.9.5 Tackling the employment challenge caused by COVID-19

The attainment of Vision 2030 and its targets in South Africa have been made more difficult by the COVID-19 crisis. This challenge must be met by redoubling efforts to put the economy back on track towards the trajectory of Vision 2030. When the COVID-19 crisis hit, the South African economy was already battling with the effects of structural problems. The crisis has led to a significant adverse impact on capacity utilisation for various sectors of the economy. This has been accompanied by significant decreases in gross fixed capital formation in the first quarter of 2020, compared to the same period the year before. The economy has also experienced a significant reduction in employment plus the effects of redundancy across various sectors of the economy. The current epidemiological scenarios and the projected scenarios on health, critical economic variables, people's livelihoods and the low base from which to build the economy all describe a situation that will require radically different measures to mitigate the impact of the crisis.

The COVID-19 crisis has had an especially devastating impact on the livelihoods of the most vulnerable South Africans, including youth. As a result of this crisis, it is anticipated that youth unemployment will increase even further. As a long-term development partner in South Africa, UNDP has taken a practical and programmatic approach to a post-COVID economic recovery for vulnerable youth and women (Box 5.8). Due to the nature of the crisis, immediate interventions in the form of more direct investment are required to create a large number of jobs in the short term through public employment programmes and related measures. Public employment programmes have an advantage of not only

creating jobs for people where they live, but also helping meet community needs in areas such as infrastructure maintenance, the care economy and ecological services.

Box 5.7: UNDP's support to post-COVID-19 economic recovery for vulnerable youth and women in South Africa

UNDP, in partnership with the Government of South Africa and with support from the Government of Japan, has been implementing a project for economically vulnerable youth and women, particularly those in technical and vocational education and training (TVET) colleges. The goal is to strengthen the capacity of these colleges to align with the needs of the post-COVID-19 economy and labour markets by enhancing the learning environment with digital learning and teaching equipment as well as workshop equipment. Achieved milestones to date are: three TVET colleges have been identified to participate in the project, and a rapid needs assessment has been completed to identify the needs of TVET colleges in equipping their students with skills aligned with the post-COVID-19 economy.

Source: UNDP South Africa (2022).

As part of the support package announced in response to COVID-19, ZAR 100 billion was earmarked for job creation and retention, and also linked to the ZAR 500 million stimulus package. This is part of an employment stimulus, based primarily on direct public investment in employment to counteract anticipated job losses. The stimulus was expected to create a cumulative 2.5 million direct jobs by the end of the 2021/22 and 5 million jobs by 2023/2024. A provisional allocation of ZAR 19.6 billion was made in the Special Adjustment Budget for this purpose.

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Overall, the ongoing state of affairs presents an opportunity to reset the South African economy. It is an opportunity to build a new, inclusive economy that benefits all. It is also a time for a permanent and decisive break with the past characterised by low and declining growth, falling per capita incomes, low investment, as well as the high and deeply entrenched levels of inequality, poverty and unemployment. In short, it is a definitive moment not only for addressing the weaknesses of the pre-COVID-19 economy, but also, and more importantly, to create an environment that supports a sustained accelerated economic recovery.

5.9.6 Investment in strong institutions

To tackle youth employment in this new world of work, South Africa must develop a capable state and strong institutions. This need has been strongly acknowledged in the NDP 2030. The Government must continue capacitating the State so that its ability to plan and implement the strategies and deliver basic services is improved. This goal would require committed, efficient and effective institutions. A ready example is the Government's vision of increasing local participation in the tourism value chain, both nationally and regionally, which in turn requires a strong and capable institution. Some of the necessary institutional arrangements and approaches are outlined below.

5.9.7 Forging institutional alliances and collaboration

Taken in isolation, interventions by different stakeholders may look promising. However, the impact on youth unemployment is strongest when these activities intersect and institutions collaborate. Two examples highlight multiple stakeholders joining forces. The first is the *Youth Job Creation Initiative*, an alliance among employers, government and philanthropic organisations, such as the Rockefeller, the JP Morgan Foundations and the EOH Group. Specifically, the EOH Group provides training to disadvantaged youth who are then placed in jobs with participating private sector and public-sector employers. These employers provide guided workplace experience to trainees while the Government provides the incentive for hiring them. This initiative typically trains disadvantaged youth, first-time job-seekers, over a period of 12 months through a programme that includes theoretical, class-based instruction as well as a significant

workplace-learning component. It is structured in line with the Government's 'learnership' model and was envisioned from the start as a multi-sector partnership with the EOH Group, working with existing customers and the Government, training and placing youth into jobs. The involvement of these different partners has helped make the programme a resounding success: by August 2015, almost 10,000 individuals were trained and more than 8,000 learners and interns were placed into jobs. The second example is the *Youth Employment Service (YES)* initiative (Box 5.9).

Box 5.8: Youth Employment Service initiative

The Youth Employment Service (YES) joint initiative with business, government, labour, civil society and youth was launched earlier in 2019. It aims at creating one million 12-month work opportunities for youth in South Africa. It had already found placements for 4,600 youth in 2018. Under this initiative, businesses will create one-year paid positions for youth with a minimum stipend of ZAR 3,500 (US\$208) month.

Source: Jahan (2019b).

5.9.8 Collaboration between partners on shared data platforms

Collaboration and information-sharing among implementing partners on policies are essential. A joint platform allows partners to plan events together, exchange documents, and quickly share programmatic updates and results. With this tool, monthly team and partner meetings are more efficient and focus on key issues rather than updates.

5.9.9 Building firm capabilities

Productivity is one dimension of capability; the other is quality. Productivity and quality depend in turn on the knowledge of the individuals who make up the firm, i.e. both the managers and the workers. In this respect, capabilities are fundamentally different from technology. Whereas technology can be codified and purchased, capabilities are mainly embodied in people and in working practices; hence, they are more difficult to codify and measure. Foreign Direct Investment (FDI) is a way of introducing higher capability firms into an economy. The foreign investor brings in the technology, managerial competence and working practices that it has developed elsewhere. Once higher capabilities have been introduced, their

potential benefit will depend on the extent to which the technical knowledge and working practices of the firm are transmitted to other firms. In addition, buyer-seller relationships along the value chain are also effective ways to transfer technological knowledge and better working practices.

Similarly, management training can be used to improve firm-level productivity. Better management practices are strongly correlated with several measures of productivity and firm performance. Organised efforts to acquire good management or working practices could take the form of collective action by firms. Alternatively, a PPP could be formed to seek information on good practices and make it available as a public good. The success of *Fundación Chile*, a PPP, in helping to establish Chile's world-class wine and salmon export industries has been widely documented. Initiatives of this type might be undertaken at a lower cost than training, and with a greater share of the cost borne by the private beneficiaries.

In prescribing policy options for the IWOSS sectors, and particularly for specific IWOSS industries, it should be recalled that these industries are heterogeneous, and hence, there is no single policy prescription or a *magic bullet* that will unlock the growth for these sectors. What is proposed, therefore, is a coherent plan, with multiple, complementary policies. Tariffs on intermediates and capital goods can place exporters at a disadvantage relative to global competitors. One option to address the anti-export bias is to create an effective 'free trade regime for exporters' through various mechanisms that eliminate or rebate tariffs on intermediate and capital inputs used in export production. Export procedures, including certificates of origin, quality and sanitary certification, as well as permits can be burdensome. These types of institutional failures fall disproportionately on IWOSS sectors, such as horticulture and agribusiness.

5.9.10 Collaboration in support of tourism and the hospitality sector

Most businesses in the tourism and hospitality sector are micro or small, and rely on friends and family for capital. For this reason, financial institutions are encouraged to take more risk, invest in young entrepreneurs and start-ups, and to develop new products and services to support this growing sector. This also encourages employers to continue to invest time and resources to train and support young job seekers. They must also work closely with educational institutions to share experiences, strengthen curricula and provide internships and other support so that youth can successfully transition to full-time employment. One good example is seen in the Mastercard Foundation's rolling out of the *Young Africa Works country strategies* in the continent, with the aim of creating 30 million jobs in the next decade. South Africa will continue to learn and share lessons of this initiative with partners, stakeholders and peers. Most importantly, the Mastercard Foundation will continue to listen to Africa's youth.

5.10 A five-pronged action agenda for youth employability

Given the enormity and complexity of the critical challenge of youth unemployment in South Africa, a strategic approach to youth market transitions is undoubtedly needed, which does not define youth exclusively in terms of *age*, but as a *transition* from childhood to adulthood that is often anchored in the individual's ability to become a productive economic actor. This strategic approach, which does not treat employment as mere jobs, but as rather a pathway to sustainable livelihoods, has been put forward by South Africa's Planning Commission in the broader context of the NDP (Box 5.10). In the light of the above analysis and policy options, a five-pronged action agenda is

Employers **must work closely** with **educational institutions** to **share experiences, strengthen curricula and provide internships** and other support so that **youth** can successfully transition to **full-time employment**.

proposed for harnessing the employability of South Africa's youth (Figure 5.5). By enhancing their role not only as workers in the labour market, but also as employers, social innovators and drivers

of progress, the Action Agenda will also have a multiplier effect on human development and thus accelerate the achievement of the SDGs. The five prongs of the Agenda are summarised below.

Box 5.9: A strategic approach to youth labour market transitions in South Africa

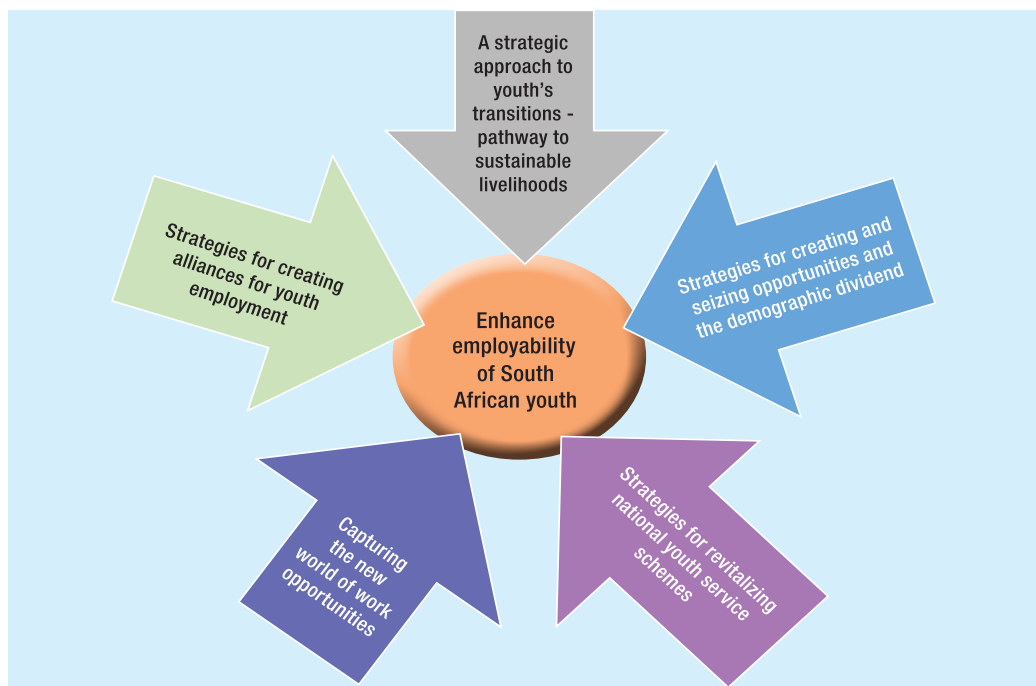
A strategic approach to youth labour market transitions in South Africa is needed because in South Africa, youth unemployment is a more complex concern than unemployment generally. Addressing the youth challenge in South Africa requires improving the overall input and role of youth in the socio-economic development of the country, not only as workers in the labour market, but also as employers, social innovators and drivers of progress.

A strategic approach to youth labour market transitions in South Africa must start with due understanding of what it means to be young, which should be part of the approach that informs interventions. Three issues are important to consider:

- Youth is not merely regarded as an age, but a transition from childhood to adulthood premised on a period of change, uncertainty, mobility and adaptation.
- Solving youth unemployment has often been narrowly focused on conventional job creation, but in addition to ensuring job availability, it is important to examine how youth access jobs. This therefore requires a pathway lens – the channels and mechanisms through which youth access the labour market and the impediments that inhabit these channels. Thus, more focus should be placed on preparedness for sustainable livelihoods than on mere jobs.
- Since so many young South Africans are unable to find jobs, the focus should be on preparing them to explore the wide range of emerging opportunities that are becoming available and creating new opportunities that focus on their individual as well as South Africa's collective unique and specific capabilities. The capabilities-centric approach is well aligned with the NDP.

Source: Based on the National Planning Commission, South Africa (2020).

Figure 5.4: A five-pronged strategy for harnessing the employability of South African youth



Source: Jahan (2019b).

1. **A strategic approach to youth transition pathway to sustainable livelihoods.** The envisioned strategic approach to youth labour market transitions in South Africa must be based on three concepts: (i) youth regarded as a transitional phase from childhood to adulthood, which is often anchored in the ability to become a productive economic actor; (ii) youth employment regarded as the setting of pathways to sustainable livelihoods in addition to ensuring job availability; and (iii) youth employment as requiring the preparation of youth for the transition from one institutional arrangement (e.g. schools) to another (e.g. labour markets). The strategic approach also proposes three kinds of intervention: (i) *accessing the formal sector with the proposed interventions of youth employer choice*, which entails adding a set of interventions to current youth employment programmes; (ii) improving the TVET and SETA systems by bringing dignity to vocational training; and (iii) reviewing and reviving the Employment Tax. The second model of the strategic approach concerns *enterprise development*, again through three interventions: (i) *innovating the entrepreneurship ecosystem by improving the quality of incubation of youth SMEs by state and non-state actors*; (ii) *developing a directory portal for SMEs with a focus on digital skills development by providing access to digital skills to youth in township and rural areas*; and (iii) *changing the private-public funding ratio by encouraging greater levels of private sector investment*.

The third model concerns supporting the social economy, again through three interventions: (i) encouraging PPPs by supporting youth social enterprises through seed funding; (ii) improving the quality of the Expanded Public Works Programme (EPWP) partnerships in order to ensure that EPWP work is sufficiently substantive to build skills; and (iii) ensuring greater accountability of the social sector, which aims to improve coordination, monitoring and evaluation of social service providing organisations.

2. **Strategies for creating and seizing job opportunities and the demographic dividend:** These strategies will create job opportunities for South African youth and enhance their capabilities of seizing

them. In this context, targeted interventions for those in special need would be critical. Strategies for creating job opportunities encompass, inter alia: (i) promoting investment for employment generation; (ii) reviving agriculture; (iii) making the informal economy more dynamic; (iv) removing barriers critical to employment-led growth; (v) developing entrepreneurship in SMEs; (vi) supporting young workers and young entrepreneurs; (vii) developing the skills of youth; and (viii) implementing PPPs. Some of the elements of the strategies for seizing job opportunities include: upskilling of the NEETs; promoting STEM subjects; changing and upgrading curricula; and acquiring 21st century skills, among others. Seizing the demographic dividend will increase the employability of South African youth in the IWOSS sectors. Since these sectors have the greatest potential for youth employment, this will facilitate capitalising on the demographic dividend. In order to capture the demographic dividend, strategies should focus on, inter alia: (i) developing infrastructure; (ii) improving skills; (iii) strengthening the regulatory environment; (iv) providing more government spending; (v) having focused policies that enable growth of specific IWOSS sectors; (vi) developing skills to support the growth of IWOSS sectors; and (vii) promoting inclusive growth for the most vulnerable.

3. **Capturing the opportunities in the new world of work:** The 21st century changed the world of work. It now requires that South African youth go beyond the traditional routes and explore new innovative options. These options may range from taking advantage of new service work; undertaking creative career paths and care work; pursuing social enterprises; and exploring philanthropic funding. In the context of the 4IR, the country must focus on infrastructure, skills development, as well as on policy and institutional arrangements.

Infrastructure refers to a stable electric supply and universal internet connectivity. With regard to skills development, talent more than capital will be the critical factor of production in the future. It will be important to develop a labour force with the skills required to create and to manage 4IR technologies, such as coding, data

science and analytics and skills that are largely predicated on mathematics and science. With regard to the policy environment and institutional arrangements, while automation and artificial intelligence threaten to destabilise the labour market, the 4IR will create new opportunities. All of these will have implications for youth.

It should be recalled that the poor, people with less education, unskilled or semi-skilled people, and people engaged in marginalised sectors should not be left behind in the pursuit of the 4IR. There must be measures to protect their livelihoods. Furthermore, if left unmanaged, the 4IR could dramatically increase inequality, whereby the riches flow to the owners of capital and technology while the poor become even poorer as they lose their jobs to machines. If this occurs, there is a real risk of increased social unrest and societal implosion. Policies and institutions must be aimed to combat these.

- 4. Strategies for revitalising the National Youth Service schemes:** The revitalisation of South Africa's National Youth Service Programme would build on the strengths of the present scheme, tackling its weaknesses, seizing its opportunities, and overcoming its threats. The strengths of the programme include: South Africa's experiences in implementing mandatory services (e.g. compulsory community services for health graduates); a culture of robust consultation; a solid institutional foundation; and the available scope for learning from other countries. In order to tackle the scheme's weaknesses, it should be protected with a legislative framework and adequate funding. Low resource intensity, the mitigation of corruption, a focus on social cohesion, a lean management structure and strong coordination would be required. Seizing the opportunities would also entail making the programme mandatory, bridging inequalities and enhancing an inclusive partnership with the private sector, CSOs and development partners, institutionalising a stakeholders' forum, and potential for cost sharing with others. Overcoming the triple South African challenges of sluggish growth, poverty and inequalities, and high unemployment is key to overcoming youth unemployment in South Africa.

- 5. Creating alliances of different actors:** To harness employability of South African youth, forging alliances among different actors will be critical, and even more so, in the context of the COVID-19 pandemic. In the arena of youth employability, isolated interventions by different stakeholders may achieve a great deal. However, the greatest impact is achieved when these activities are complementary and institutions collaborate. One important element of alliance building is collaboration and information-sharing on approaches and policies among implementing partners. Shared data platforms enable partners to plan joint events, share documents, and quickly share programmatic updates and results. With this tool, monthly team and partner meetings are more efficient and focus on key issues.

The long-term financial sustainability of youth employment programmes requires a financial partnership among concerned stakeholders. Often, since these programmes rely on only one source of financing (e.g. federal grants), the funds are inadequate, which renders them vulnerable due to the uncertainty of funds. Long-term financial sustainability would be ensured if a financial alliance is forged between different levels of government, the private sector and others.

Youth employment programmes can truly benefit from the research, data, monitoring and evaluation of different universities, research institutions as well as from international organisations. The linkages among and across all of them are critical.

5.11 Conclusion: preventing a lost youth generation

Youth unemployment in South Africa is not merely a problem, but also a challenge. It not only limits the earning potential and future prospects of a new generation of South Africans, but also stymies business growth, threatens social cohesion, and puts pressure on government resources. South Africa faces the prospect of yet another lost generation through the erosion of skills and human capital that comes with prolonged unemployment. This may

decelerate human development in the country. The high youth unemployment is therefore a time bomb for South Africa.

On the positive side, youth employability has the potential of being an accelerator of human development in South Africa. If well harnessed, youth's capabilities, i.e. skills, energy, knowledge, expertise and attitudes, can positively transform societies and shift the frontier of development. The precipitating youth unemployment in Africa is proof of their economic and social marginalisation. It has stopped them from using their assets to become economically productive, socially engaged, and active agents of development and transformation of the African continent. The high levels of poverty, income inequality and unemployment are stark realities that complicate the transition of South Africa's youth into adulthood, when compared to their counterparts in other parts of the world. The extent to which these assets are honed and harnessed will shape the future of the continent's development, as youth of today transform to leaders of tomorrow. When youth potential is not effectively harnessed, they become a major source of societal ills, which weighs down growth and development processes.

The rising recognition of youth as assets, partners and prerequisites for sustainable development, shared prosperity, peace and stability has legitimately increased the policy focus on them. The time to act is now, and the entire South Africa must join heads, hearts and hands in order to tackle this crisis and defuse the potential time bomb. *The Rainbow Nation* could show the way again, in reducing youth unemployment. A full employment scenario for South African youth is not a dream, but a reality. The country can build on what it has achieved; it can explore new possibilities, and it can attain what once seemed unattainable. Its past has brought it where it is now, but this should not dictate its future. Hope is within South Africa's reach to realise.

5.12 Recommendations

The world of work is changing fast both in terms of content as well as in *modus operandi*. Every economy is being affected by globalisation and the digital revolution. Some work has vanished, but new opportunities have emerged. Even during the COVID-19 pandemic, new lines of services emerged

and have reached South African shores. The critical question is, then, how to minimise the adverse effects of these global changes and take advantage of the opportunities they present. This report provides the following recommendations:

- 1) **Taking advantage of new service work:** The new world of work in the 21st century requires South African youth to go beyond traditional thinking and explore new options. The digital revolution has produced new frontiers of work, such as *the sharing economy* (GrabTaxi), business process outsourcing (UpWork), crowdworking (Mechanical Turk) and flexible working. South African youth should network with other countries in order to see if these opportunities can be replicated and pursued with the necessary adaptation to the South African context. Indeed, as the *gig economy* grows, youth's ability to be innovative, creative and capable of taking initiative to launch new ventures will serve them well during the 4IR. They should be capable of adapting and taking initiative and risks, and be innovative, creative, industrious, resilient, ingenious, curious, optimistic and courageous, among others.
- 2) **Exploring and undertaking creative careers and care work:** Since South Africa's youth are artistic, creative and innovative, they should undertake initiatives in various areas of creative work ranging from music and painting to writing and handicrafts. Similarly, the care sector is experiencing needs for old-age care as the share of older people is rising within the population. There are also needs for childcare due to situations where both parents in many families are working outside the home. The mindsets about these sectors, including those of the younger generation, should change. In a future South Africa, these may be the work areas that would experience worker shortages and hence provide opportunities for employment.
- 3) **Pursuing social enterprises:** Inspired by a particular cause and by the desire to give back to society, numerous successful young commercial entrepreneurs around the world are transitioning from for-profit ventures to engagement in social change. Most of these entrepreneurs are independently skilled and wealthy organisation builders. They are often

establishment outsiders, and some are from the diaspora. In India, for example, a survey of 763 commercial entrepreneurs who made the transition from commercial to social entrepreneurship between 2003 and 2013, and a quantitative analysis of 493 entrepreneurs indicated that 21 percent of successful entrepreneurs shifted to social change efforts; their South African counterparts may also consider pursuing similar social businesses. Box 5.11 provides an overview of the social entrepreneurship situation in South Africa.

Box 5.10: Social enterprises in South Africa

South African social enterprises either prioritise their social and environmental mission, or strike a balance between their purpose and profits. Although most of them do not depend on grants or donations, they consider themselves non-profit companies or social enterprises, rather than businesses, or religious or community organisations. Most have been operating for more than three years.

Social enterprises in South Africa tend to focus on meeting basic needs in the education, health and housing sectors and are local, community-based entities. Most are involved in developing skills or promoting education and literacy. The focus is often on supporting disadvantaged groups such as children, youth, and women, or on improving a particular community. Social enterprises in South Africa strive to be innovative. They believe that innovation makes their enterprises more effective, allowing them to serve more beneficiaries, and deliver better quality goods and services. For many, innovation has allowed better profits than similar enterprises, and to operate at lower cost.

Most of the social enterprises in South Africa expect to grow rapidly and thus provide increased services to beneficiaries, launch new goods and services, as well as attract new customers. However, this growth could be limited by their ability to access financial and physical resources, and by how they manage financial resources.

Source: Jahan (2019b).

- 4) **Exploring philanthropic funding:** Young South African entrepreneurs should explore the avenue of philanthropic funding. This funding is vital in supporting experimentation and innovation, and in removing some of the barriers

that lock the disadvantaged youth out of opportunity. Funders can also play an important role in building and increasing the involvement of employers and government in partnership-based solutions to youth joblessness. The *Mentec Foundation* initiative is a good example of philanthropic funding (Box 5.12).

Box 5.11: Partnership with philanthropy to address youth unemployment in South Africa

Mentec is a nine-year-old hybrid social enterprise offering commercial training services to corporate and government buyers on a fee-for-service basis. Part of its income, together with philanthropic and corporate social investment funding, is used to offer training to disadvantaged youth through the Mentec Foundation. Located in Germiston to the east of Johannesburg, Mentec has partnered with the City of Ekurhuleni (CoE) in a unique way that leverages employer and philanthropic funding for youth job creation.

The nature and quality of training delivered by Mentec as part of the CoE programme boosts the performance of candidates in the workplace, frequently helping them to secure permanent employment after their internship. Mentec can partially fund the training of disadvantaged youth through its commercial training activities. However, it requires support from foundations and corporate actors in the form of grant funding to fully cover costs. Attracted by the link to job placements after training and the scale at which Mentec operates, corporate social investors (Microsoft, Accenture) as well as philanthropic givers such as The Rockefeller Foundation are partnering with Mentec to pursue the shared goal of lowering youth unemployment in South Africa.

Source: Shankar, Cooper and Koh (2016).

- 5) **Getting ready for the 4IR:** South Africa established the Presidential Commission on the Fourth Industrial Revolution to guide policies on the 4IR. According to its terms of reference, South Africa's vision for development is premised on resolving the nation's historical scars, expressed as the 'triple scourge of poverty, unemployment and inequality'. The Presidential Commission was mandated to provide leadership for all of society in understanding and navigating a future during the 4IR. The Presidential Commission published its first official report

in October 2020. Its main recommendations were that South Africa should: invest in human capital development; establish an artificial intelligence institute; and establish a platform for advanced manufacturing and new materials. It should furthermore secure and gather data to enable innovation; provide incentives for future industries, platforms and applications of 4IR technologies; build 4IR infrastructure; review and amend (or create) policy and legislation; and establish a *Fourth Industrial Revolution Strategy Implementation Coordination Council* in the Presidency. In this context, the country must focus on three priorities: infrastructure, skills development, and policy environment and institutional arrangements.

In order to master the 4IR, South Africa must first have a good understanding of the second and third industrial revolutions. The beleaguered power utility Eskom, which struggles to supply electricity and pay its debts, is illustrative of a critical infrastructure challenge. Earlier in 2019, South Africa saw the biggest GDP contraction in a decade, primarily as a result of load shedding, which underscores how critical Eskom is to business continuity and productivity. Improving Eskom's efficiency, stabilising its finances and deregulating the energy sector will be necessary for ensuring energy security. The 4IR relies critically not only on a stable electricity supply, but also on universal internet connectivity. However, only 15 percent of households have fixed broadband, and around half of the population have smartphones or mobile data access. It is widely expected that in the advancement of the Internet of Things (IoT), applications will rely on 5G mobile telecoms infrastructure.

Regarding skills development, talent – more than capital – will represent the critical factor

of production in the future. Hence, it is critical to form a labour force with the skills required to create and manage 4IR technologies, such as coding, data science and analytics. These skills are largely predicated on mathematics and science, disciplines in which South Africa ranks among the lowest in the world, as evidenced by a global assessment of school students conducted by the OECD in 2015. Proponents of the 4IR therefore advocate for coding to be added to the national curriculum. However, this would be futile if students are unable to do even the basic sums. Therefore, it is imperative to revise the basic education system, and ensure that teachers are qualified and that schools have the tools and infrastructure to support a significant improvement in the standard of mathematics and science.

With regard to the policy environment and institutional arrangements, the 4IR will create a disruption in the labour market because automation and artificial intelligence threaten to destabilise the labour market. Machines have become capable of performing people's jobs. But the 4IR will also create new opportunities for which strategies are required to capitalise. These new opportunities will bypass the poor, the less educated, unskilled or semi-skilled, and people engaged in marginalised sectors. But these vulnerable groups should not be left behind; measures must be taken to protect their livelihoods.

If left unmanaged, the 4IR could dramatically increase inequality, whereby the riches flow to the owners of capital and technology, and the poor become even poorer as they lose their jobs to machines. If this occurs, there is a real risk of increased social unrest and societal implosion. Policies and institutions must aim to combat these threats.

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Statistical Annex

1. Data and information sources

Constructing the composite indicators and dashboard tables for this Statistical Annex to the South Africa National Human Development Report, 2022 (SAHNDR 2022) relied on the availability of data and other supporting information. The express aim was to foreground nationally produced and vetted data, but where issues for comparability prevented this, other external and international sources were used. It is important to note that for a National Human Development Report (NHDR), use of national data is encouraged. Moreover, it is important to provide all necessary metadata: definitions, classifications, methods of computation, methods of collections, and other country-specific references, that would allow the readers and researchers to have a good understanding of the country-specific level of development and other circumstances.

This Annex therefore serves as an important yardstick, not only of the availability of national data to feed into internationally comparable assessments of development, but also to highlight areas for further collaboration towards developing contextually relevant indicators.

The data presented are based mostly on the national data regularly reported by Statistics South Africa (Stats SA), the national statistical agency. In addition, Quantec, a consulting company, through its database EasyData, with socioeconomic data at the national and subnational levels is also relied upon. Some methodological papers and data available from the Human Development Report (HDR) Office of UNDP were also consulted and used in applying the relevant computations and methodology.

The production of this Annex has been an ambitious project, particularly in seeking to provide the Human Development composite measures at the municipality level. The usual lack of data at this level is bridged, particularly by the use of statistical models by Quantec. However, there is neither an available reference nor publicly accessible documentation for these models. Without this, it is impossible to assess the quality of data and methods used.

2. Reader's Guide

The six statistical tables presented here provide an overview of key aspects of human development in South Africa. The tables comprise composite indices and other development indicators prepared using data collected for the South Africa Human Development Report (SAHDR) for 2020. In addition to general notes and definitions, the Annex presents technical notes on how indices and other development indicators for this report were computed.

Table A1 provides the Human Development Index over time, as well as its disaggregation to the provincial and metro levels.

Table A2 provides the Human Development Index for South Africa over time, disaggregated provincially.

Table A3 provides the South African Multidimensional Poverty Index (SAMPI) estimates based on the National Census 2011 and the Community Survey of 2016 conducted by Stats SA. The 2011 SAMPI has 11 indicators covering four distinct areas of human wellbeing: health, education, economic activities and standard of living. The 2016 MPI has 10 indicators covering three areas of well-being: health, education and standard of living.

Table A4 provides the Gender Inequality Index (GII) calculated for South Africa between 2011 and 2019 at the national level.

Dashboard 1: Quality of human development, provides indicators on the quality of Human Development at the national and provincial levels.

Dashboard 2: Life-course gender gap, contains 13 indicators that display gender gaps in choices and opportunities over the life course—childhood and youth, adulthood and older age. However, some of the indicators were not available at the provincial level (e.g. school enrolment ratios). These data are usually collected by the Ministry of Education in relevant countries.

Dashboard 3: Women's empowerment, contains 14 woman-specific empowerment indicators that allow empowerment to be compared across three dimensions: reproductive health and family planning, violence against women and girls, and socioeconomic empowerment. Some of the indicators could not be

included because they are usually not gathered in South Africa; for example, the prevalence of female genital mutilation/cutting among girls and women.

It was neither possible to produce the Inequality Adjusted Human Development Index (IAHDI) nor the Gender Development Index (GDI) due to the inability to gain access to inequality-adjusted versions of all four of the indicators required to produce the composite index. Although the gender-adjusted data were received, they came too late to be included in this Annex. Nevertheless, they are valuable data that will be included in the next version of the SANHDR.

Dashboard 4: Environmental sustainability, contains a selection of indicators that cover environmental sustainability and environmental threats. The environmental sustainability indicators present fossil fuel energy consumption, carbon dioxide emissions, forest area, fresh-water withdrawals, use of fertiliser nutrient and domestic material consumption. The environmental threats indicators are: mortality rates attributed to household and ambient air pollution, and to unsafe water, sanitation and hygiene services; the number of deaths and missing persons attributed to disasters; the percentage of land that is degraded mostly by human activities and practices; and the International Union for Conservation of Nature Red List Index value, which measures aggregate extinction risk across groups of species.

Dashboard 5: Socio-economic sustainability, contains a selection of indicators that cover economic and social sustainability. The economic sustainability indicators are adjusted net savings, total debt service, gross capital formation, skilled labour force, diversity of exports, and expenditure on research and development. The social sustainability indicators are: old-age dependency ratio projected to 2030; ratio of education and health expenditure to military

expenditure; change in overall loss in Human Development Index (HDI) value due to inequality; and changes in gender and income inequality.

3. Statistical tables

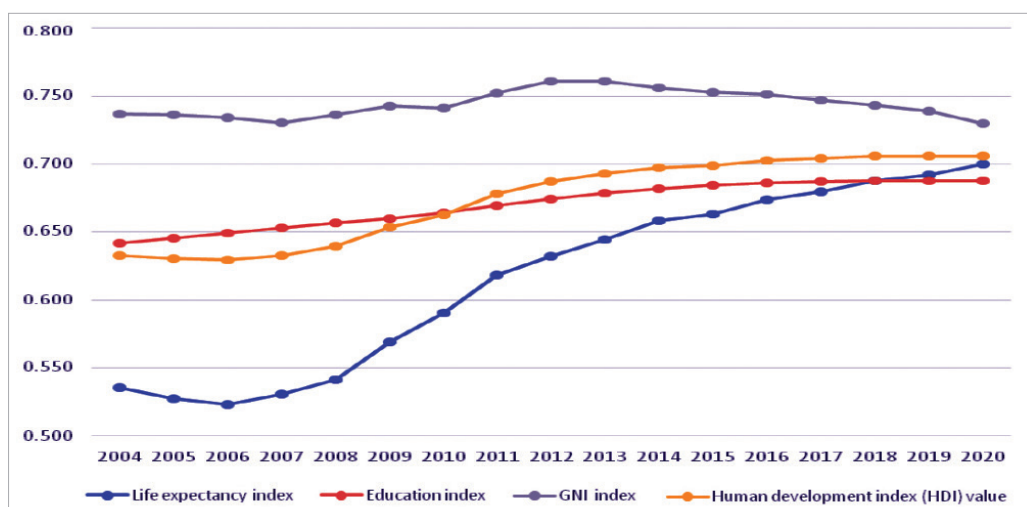
Table A1 shows the HDI computations for South Africa. The last SAHDR was in 2003, and thus it was seen as important that this table allows an illustration of the trend in the overall HDI for South Africa since the last report. While the national HDI trend was relatively unchanged between 2004 and 2007, there was a discernible improvement in human development in the decade between 2007 and 2016, with the HDI value rising from 0.623 to 0.694 over this period. After 2016, the human development level has remained relatively constant, slightly under a value of 0.700. The main factor driving this observed change in aggregate human development was a gain in life expectancy. Life expectancy at birth rose progressively from 54.0 years in 2006 to 65.5 years in 2020, a gain of more than a decade. This is largely due a recovery from the decline in life expectancy that occurred in the 1990s and early 2000s because of the HIV/AIDS pandemic. With the rollout of antiretroviral drugs in the country, the survival rate for HIV-positive South Africans has dramatically improved. Accompanying this change are discernible improvements in education levels between 2004 and 2016. Gross national income per capita was relatively stable during most of the 2000s, fluctuating in a narrow range. There was a slight improvement on this dimension of human development between 2010 and 2013, after which there has been a progressive decline to similar levels as what was observed in the mid-2000s. It is likely that the socio-economic consequences of the COVID-19 pandemic and national lockdown may produce a further downturn on this dimension in the short- to -medium-term.

Table A1: Human Development Index for South Africa

Human Development Index	Life Expectancy Index	Education Index	Gross National Income Index	Human Development Index value
2004	0,535	0,642	0,737	0,633
2005	0,528	0,645	0,736	0,631
2006	0,523	0,649	0,734	0,629
2007	0,531	0,653	0,731	0,633
2008	0,542	0,657	0,736	0,640
2009	0,569	0,660	0,743	0,654
2010	0,591	0,664	0,741	0,663

Human Development Index	Life Expectancy Index	Education Index	Gross National Income Index	Human Development Index value
2011	0,618	0,670	0,752	0,678
2012	0,632	0,674	0,761	0,687
2013	0,645	0,679	0,761	0,693
2014	0,658	0,682	0,756	0,698
2015	0,663	0,684	0,753	0,699
2016	0,674	0,686	0,751	0,703
2017	0,680	0,687	0,747	0,704
2018	0,688	0,688	0,743	0,706
2019	0,692	0,688	0,739	0,706
2020	0,700	0,688	0,730	0,706

Figure A1: Graphical representation of Table A1



Notes	Definitions	Main Data Sources
<p>Expected years of schooling: defined as the number of years of schooling that a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the child's life.</p> <p>Mean years of schooling: measures the achievement of the second part of access to knowledge as one of the three key dimensions of human development, namely the average number of completed years of education of a country's population aged 25 years and older, excluding years spent repeating individual grades.</p> <p>GNI per capita: measures the achievement of a decent standard of living as one of the three key dimensions of human development.</p>	<p>Life expectancy: Measured in years as living a long and healthy life is considered one of the three key dimensions of human development.</p> <p>Expected years of schooling: The total number of years of schooling that a child of a certain age can expect to receive in the future, assuming that the probability of their being enrolled in school at any particular age is equal to the current enrolment ratio for that age.</p> <p>Mean years of schooling: Average number of completed years of education of a country's population, excluding years spent repeating individual grades.</p>	<p>Columns 1-4: The South Africa National Human Development Report (SANHDR) team's computations based on 2022 Quantec EasyData. Download Date: 2022-02-11</p> <p>Dataset: RHD Development Indicators – Human Development Index with life expectancy at birth, expected years of schooling, mean years of schooling, and gross national income (GNI) per capita</p> <p>Source: Quantec</p> <p>Frequency: Annual</p>

Notes	Definitions	Main Data Sources
<p>Expected years of schooling: This measures the dimension of knowledge. Defined as the number of years of schooling that a child of school entrance age can expect to receive if prevailing patterns of age-specific enrolment rates persist throughout the child's life.</p>	<p>Life expectancy: Life expectancy in years measures the achievement of living a long and healthy life as one of the three key dimensions of human development.</p>	<p>Columns 1–4: SANHDR team computations based on 2022 Quantec's EasyData. Download Date: 2022-02-11</p>
<p>Mean years of schooling: This measures the achievement of the second part of access to knowledge as one of the three key dimensions of human development, namely the average number of completed years of education of a country's population aged 25 years and older, excluding years spent repeating individual grades.</p> <p>Gross national income per capita: This measures the achievement of a decent standard of living as one of the three key dimensions of human development.</p>	<p>Expected years of schooling: The total number of years of schooling that a child of a certain age can expect to receive in the future, assuming that the probability of their being enrolled in school at any particular age is equal to the current enrolment ratio for that age.</p> <p>Mean years of schooling: Average number of completed years of education of a country's population, excluding years spent repeating individual grades.</p> <p>Gross national income per capita:</p>	<p>Dataset: RSA Standardised Regional Demographics Population, HIV infection, AIDS deaths and other deaths (Quantec) (www.easydata.co.za/dataset/RHIV)</p> <p>Source: Quantec</p> <p>Frequency: Annual</p>

Table A2 disaggregates the HDI computations to a provincial level and allows interrogation of the differences in HDI at a regional level, but also how the overall national trend over time translates to the provincial level. The provincial human development trends confirm that the national pattern is largely replicated across the nine provinces. Human development values increased between the mid-2000s until mid-2010s, after which there has been a relative flattening out of HDI values. Despite the common tendency in human development over the observed period, there remains appreciable

provincial inequality in levels of human development. In particular, the HDI values in Gauteng and the Western Cape are significantly higher than in the other seven provinces. There has been an element of convergence in HDI values over time, but the differences remain stark. Even among the seven provinces that have more clustered HDI values, there is a fair degree of spread in human development. Provinces such as North-West, Mpumalanga and Limpopo display HDI values that are comparatively higher than the Eastern Cape, KwaZulu-Natal and Free State.

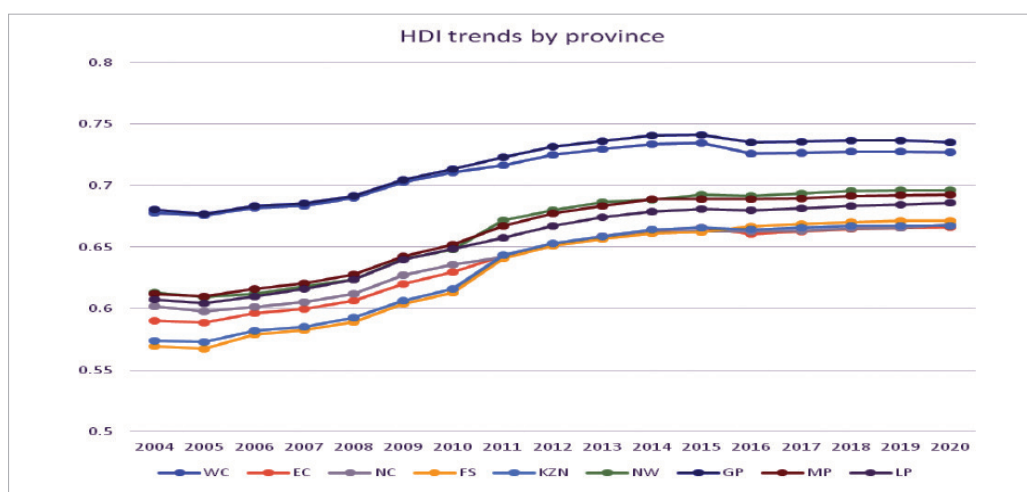
Table A2: HDI estimates at the provincial level

Human Development Index (HDI) values for South Africa									
	WC	EC	NC	FS	KZN	NW	GP	MP	LP
2004	0,678	0,590	0,602	0,569	0,574	0,613	0,680	0,612	0,607
2005	0,676	0,589	0,598	0,567	0,573	0,609	0,677	0,610	0,604
2006	0,682	0,596	0,601	0,579	0,582	0,612	0,684	0,616	0,610
2007	0,683	0,600	0,605	0,582	0,585	0,618	0,685	0,621	0,616
2008	0,690	0,606	0,612	0,589	0,592	0,624	0,692	0,627	0,624
2009	0,703	0,620	0,627	0,604	0,607	0,640	0,705	0,642	0,640
2010	0,711	0,630	0,636	0,613	0,616	0,648	0,713	0,652	0,648
2011	0,716	0,643	0,642	0,641	0,643	0,672	0,723	0,667	0,658
2012	0,725	0,652	0,651	0,651	0,653	0,680	0,732	0,677	0,667
2013	0,730	0,658	0,658	0,656	0,659	0,687	0,736	0,683	0,674
2014	0,734	0,664	0,662	0,661	0,664	0,689	0,741	0,689	0,679

Human Development Index (HDI) values for South Africa									
	WC	EC	NC	FS	KZN	NW	GP	MP	LP
2015	0,735	0,666	0,663	0,662	0,666	0,693	0,741	0,689	0,681
2016	0,726	0,661	0,663	0,667	0,664	0,692	0,735	0,689	0,680
2017	0,726	0,663	0,663	0,669	0,666	0,693	0,736	0,690	0,681
2018	0,728	0,665	0,665	0,670	0,667	0,696	0,737	0,692	0,684
2019	0,728	0,666	0,666	0,671	0,667	0,696	0,737	0,692	0,684
2020	0,727	0,666	0,668	0,672	0,667	0,696	0,735	0,692	0,686
	WC	EC	NC	FS	KZN	NW	GP	MP	LP

Note: WC=Western Cape; EC=Eastern Cape; NC=Northern Cape; FS= Free State; KZN=KwaZulu-Natal; NW=North-West; GP= Gauteng; MP=Mpumalanga; LP=Limpopo

Figure A2: Graphical representation of Table A2



The **Tables A3** disaggregates the SA(MPI) for two data points (2011 and 2016) and provincially. Poverty is a complex, multidimensional concept commonly described using uni-dimensional measurements such as income or expenditure. The Multidimensional Poverty Index (MPI) recognizes the many deprivation factors affecting a poor person and aims to consolidate them into a single composite measurement. The MPI could include measures about the population's health status, access to education, living standards, income, work opportunities and threats from violence. The Global Multidimensional Poverty Index (MPI) is an international measurement of acute poverty introduced by Alkire and Foster (2009) for the United Nations. The MPI aims complement uni-dimensional poverty measurements, accounting for the deprivations experienced by a household or individual. It is calculated using indicators that

describe the Health, Education and Living Standard dimensions. The Index is calculated by capturing a headcount of households or individuals experiencing these poverty indicators. The Index further calculates the intensity of poverty.

Similar to the global MPI, the SAMPI measures the multidimensionality of poverty within the South African context. Like the MPI, the SAMPI is constructed using the Alkire and Foster methodology, hence it follows a similar methodology to the MPI but integrates dimensions of poverty relevant to the country. The SAMPI differs by including a fourth dimension and altering the indicators that comprise each dimension. The SAMPI includes an Economic Activity dimension and is produced using the Census data from 2011 and the Community Survey data in 2016 (Stats SA, 2014). Both surveys were conducted

by Stats SA. These two surveys are the most comprehensive surveys that have been conducted in the country since 2011, allowing the SAMPI measurement (based on a household aggregation) to be produced at a lower geographic level. The SAMPI could be produced at the Enumeration Area level, allowing for approximately 120,000 data points when using the Census 2011 data (Stats SA, 2014).

The SAMPI comprises four dimensions: Health, Education, Standard of Living and Economic Activity. Table 1 outlines the indicators and deprivation cut-offs used for each indicator. The SAMPI indicators differ from the Global MPI indicators by excluding Nutrition from the Health dimension and replacing

the Floor type indicator with Dwelling type, recognizing households living in sub-standard conditions. When calculating the Index, each dimension receives an equal share of the weight. Since there are four dimensions, the cumulative weight for each dimension equals one-quarter. For the standard of living dimension, which has seven indicators, each indicator shares the weight of the dimension and is scored 1/28. If the indicator at the household level evaluates as true, the household is scored with the value of the indicator's weight. A household is flagged as multi-dimensionally poor if its cumulative weight exceeds 33.3 percent (Stats SA, 2014).

Table A3 (1): The South African Multidimensional Poverty Index (SAMPI) dimensions and indicators

Dimension	Indicator	Deprivation cut-off	Weight
Health	Child mortality	If any child under the age of 5 has died in the past 12 months	1/4
Education	Years of schooling	If no household member aged 15 or older has completed 5 years of schooling	1/8
	School attendance	If any school-aged child (aged 7–15) is out of school	1/8
Standard of Living	Fuel for lighting	If the household is using paraffin/candles/other/none	1/28
	Fuel for heating	If the household is using paraffin/wood/coal/dung/other/none	1/28
	Fuel for cooking	If the household is using paraffin/wood/coal/dung/other/none	1/28
	Water access	If there is no piped water in the dwelling or on stand	1/28
	Sanitation type	If there is no flush toilet	1/28
	Dwelling type	If an informal shack/traditional dwelling/caravan/tent/other	1/28
	Asset ownership	If the household does not own more than one radio, television, telephone or refrigerator, and does not own a car	1/28
Economic Activity	Unemployment	If all adults (aged 15–64) in the household are unemployed.	1/4

Source: Stats SA, 2014.

In 2011, at the national level, 8.022 percent of households were considered multidimensionally poor. This assessment is based on when a household's cumulative deprivation weight exceeds 33 percent. In 2011, 8.022 percent of households had a cumulative deprivation weight of over 33 percent but this figure decreased to 7.045 percent in 2016. The intensity of poverty can be defined as the average proportion of indicators in which poor households are deprived. Thus, between 2011 and 2016, the intensity of poverty increased by approximately 0.55 percent.

When comparing the provincial results, there is an increase in the headcount ratio in all provinces except Limpopo; the influence of internal migration may explain this. Between 2011 and 2017, Limpopo experienced a net outward migration of 38,000 people. In this period, only the Eastern Cape experienced a higher net outflow of people (Stats SA, 2016). The remaining population in the province may be more established, with better access to infrastructure, assets, education and/or healthcare, resulting in a slightly lower headcount ratio in 2016.

Table A3(2): SAMPI 2011 and 2016 estimates

Province	Census 2011			Community Survey 2016		
	Headcount ratio	Intensity	SAMPI score	Headcount ratio	Intensity	SAMPI score
South Africa	8.022	42.255	0.034	7.045	42.802	0.030
Western Cape	2.684	40.114	0.011	3.595	42.597	0.015
Northern Cape	6.603	42.011	0.028	7.096	42.090	0.030
North-West	8.820	42.503	0.037	9.161	41.995	0.038
Mpumalanga	7.781	42.715	0.033	7.924	41.814	0.033
Limpopo	11.485	42.286	0.049	10.115	41.553	0.042
KwaZulu-Natal	7.657	42.548	0.033	10.934	42.033	0.046
Gauteng	4.640	44.120	0.020	4.800	43.828	0.021
Free State	5.483	41.698	0.023	5.527	42.154	0.023
Eastern Cape	12.672	43.266	0.055	14.359	41.918	0.060

Notes	Definitions	Main Data Sources
<p>Since the SAMPI is aggregated at the household level, it can be presented at different geographic levels. However, between 2011 and 2016, several municipalities experienced boundary demarcation changes. The changes to the boundaries influence how the measurement is compared at subnational levels. For instance, where municipalities shift between provincial boundaries, the population from 2011 falls under a different demarcation, causing figures to shift more dramatically than expected.</p>	<p>Headcount ratio: Measures the percentage of the population living below poverty line but often ignores its nuances such as the depth of poverty.</p> <p>Intensity: defined as the average proportion of indicators in which poor households are deprived (how far they are from the poverty line).</p> <p>SA(MPI) score: Captures the percentage of the population deprived of all three dimensions (income, education and basic infrastructure).</p>	<p>Columns 1-6: National and Provincial SAMPI results (2011 and 2016), Stats SA. Census 2011 and Community Survey 2016.</p>

The **Table A4** provides the Gender Inequality Index (GII) for South Africa at the national level. The advantage in this version of the Statistical Annex is that it was possible to provide data and thus, an analysis over time, showing that nationally there has been a decline in gender inequality based on the variables included in this index for South Africa. However, in order to improve the analysis regarding this indicator in South Africa, it is necessary to obtain available provincially disaggregated data. In this regard, it would be important to have data disaggregated provincially for the share of parliamentary seats by sex, as well as the estimation of the maternal mortality ratio (MMR) at the provincial level. While the former might be

more easily produced, MMR is a composite indicator refers to deaths due to obstetric-related causes as well as numbers of births in a given year. Both must be adjusted for completeness within a given year. While this is available for the number of deaths at the provincial level, it is not available for the number of adjusted births at the provincial level. The mid-year population estimates from Stats SA only covers births nationally, and using unadjusted births would result in different levels of completeness influencing annual provincial maternal mortality rates in an unequal manner. For the AFR, PSS and Labour Force Participation (LFP) disaggregation to the provincial and metro levels are possible.

Table A4: The Gender Inequality Index for South Africa, 2011–2019

Year	Gender Inequality Index	Maternal mortality rate	Adolescent fertility rate	Seats in the National Parliament		Population with at least secondary education (25 years and older)		Labour force participation rate (15 years and older)	
	Value			% Female	% Male	% Female	% Male	% Female	% Male
2011	0,405	198	59	41.0	59.0	64.0	69.2	59.5	70.9
2013	0,391	153	64	41.0	59.0	67.2	71.6	59.9	60.6
2014	0,393	166	61	41.0	59.0	67.9	72.7	50.7	63.7
2015	0,380	153	56	41.2	58.8	70.3	74.0	52.1	65.1
2016	0,365	137	51	41.2	58.8	71.5	75.0	52.3	65.4
2017	0,343	109	48	41.0	59.0	72.6	76.0	53.6	66.1
2018	0,331	109	41	41.8	58.2	73.7	77.4	53.2	65.6
2019	0,343	109	48	41.8	58.2	74.4	77.5	53.4	65.8

Notes	Definitions	Main Data Sources
<p>Maternal mortality ratio (MMR): For 2018 and 2019, the last available data point was imputed by applying the Last Observation Carried Forward (LOCF) imputation which is often applied in time series data, so as not to lose valuable data points that are available for all other indicators up to 2019.</p> <p>Seats in national parliament: All nationally available sources of data – the Independent Electoral Commission (IEC) and Gender Links – disaggregates the reporting on this to proportions in the National Assembly and the proportion of women in the National Council of Provinces (NCOP). As noted by the Inter-Parliamentary Union (IPU), the figures on the distribution of seats for South Africa do not include the 36 special rotating delegates appointed on an ad hoc basis. There are 400 seats in the National Assembly (lower house) and 90 seats (delegates) in the National Council of Provinces, of which 54 seats are permanent and 36 are special. When calculating the share of women in parliament, the IPU as well as the Human Development Report Office (HDRO) consider 454 seats, thus without the 36 special delegates in the National Council. The decision was therefore made to rely on data from IPU, which uses the same methodology as the global development report to assist in comparability.</p>	<p>Gender Inequality Index: A composite index capturing differences in achievements between women and men in reproductive health, empowerment and labour market.</p> <p>MMR: Maternal mortality ratio (MMR) is the number of deaths per 100,000 live births. It represents the risk of death associated with pregnancy, i.e. deaths of women while pregnant or within 42 days of termination of pregnancy from any cause related to, or aggravated by, the pregnancy or its management, but not from accidental or incidental causes.</p> <p>Adolescent birth rate/age-specific fertility rate: The adolescent birth rate measures the annual number of births to female youth aged 15–19 per 1,000 female youth in that age group. It is also known as the age-specific fertility rate.</p> <p>Population with at least secondary education: The percentage of the population aged 25 and over that attained or completed lower secondary education.</p> <p>Labour Force Participation Rate (LFPR): is calculated by dividing the number of parliamentary seats occupied by women by the total number of seats occupied.</p>	<p>Column 1: SANHDR team computations based on</p> <p>Column 2: Rapid Mortality Surveillance (RMS) Report 2012, 2015, 2016, 2017 and 2018 produced by the South African Medical Research Council (SAMRC), 2016 and 2017 figures updated as per the 2019/2020 report.</p> <p>Column 3: SANDR team computations based on Stats SA (Vital Statistics: Recorded live births 1998–2020) as well as mid-year population estimates between 2003 and 2021.</p> <p>Columns 4 and 5: IPU Parline. Global data on national parliaments (https://data.ipu.org). Reference year: 2022</p> <p>Columns 6 and 7: SANDR team computations based on Stats SA (Labour Market Dynamics 2008–2019) data.</p> <p>Columns 8 and 9: Stats SA Report-02-11-022013_QLFS 2001 to 2013 and Stats SA Report-02-11-022020_LFPR by sex QLFS 2014 to 2020.</p>

Dashboard 1: Quality of human development, contains a selection of indicators associated with the quality of health, education and standard of living. The indicators on quality of health are lost health expectancy, number of physicians and number of hospital beds. The indicators on quality of education are: pupil-

teacher ratio in primary schools; primary school teachers trained to teach; the percentages of primary and secondary schools with access to the internet; and Programme for International Student Assessment (PISA) scores in reading, mathematics and science. The indicators on quality of standard of living are: the percentage

of employed that is in vulnerable employment; the percentage of the rural population with access to electricity; the percentage of the population using safely managed drinking water services; and the percentage of the population using safely managed sanitation facilities.

Dashboard 1: Quality of human development

	Lost health expectancy				No. of physicians (rate per 10 000 population)	Number of hospital beds (per 100 000 population)	Learner/educator ratio	Proportion of schools with access to the internet		TIMSS scores in maths	TIMSS scores in science	PIRLS scores in reading	Proportion of employment that is vulnerable	Proportion of population with access to electricity	Proportion of population living in house-holds with access to improved sanitation facilities
	Years of lives lost (YLLs) -% due to communicable, maternal, perinatal, nutrition causes	YLLs-% due to HIV and TB	YLLs-% due to injuries	YLLs-% due to non-communicable diseases				Proportion of schools having internet connectivity for teaching and learning (%)	Proportion of schools having internet connectivity for administrative purposes (%)						
	2014	2014	2014	2014	2019	2014	2019	2020	2020	2019	2019	2019	2019	2020	2020
SA	20.9	27.0	13.7	38.4	7.67	186.4	29	20.3	29.4	389	370	320	31.7	95.7	82.6
GP	22.3	22.7	13.1	42.0	10.49	225.9	28	28.1	69.5	421	422	343	27.2	93.5	90.9
KZN	19.9	32.3	13.1	34.7	7.10	214.0	29	9.2	17.2	378	352	316	61.5	97.8	80.2
MP	24.1	32.1	12.9	31.0	3.74	123.5	30	5.1	10.8	375	350	313	39.1	94.3	63.8
WC	10.7	19.6	19.0	50.7	15.18	175.2	29	86.5	88.4	441	439	377	21.2	98.7	94.7
LP	30.4	25.1	10.5	34.0	2.94	138.8	32	3.9	8.9	364	331	285	43.0	98.2	55.5
EC	15.8	31.2	14.5	38.5	4.80	184.4	29	10.8	22.1	366	334	290	37.6	95.8	91.6
W	26.1	28.2	10.2	35.5	3.65	132.6	30	18.7	44.2	383	358	326	30.9	91.9	81.3
FS	23.6	27.1	12.1	37.2	6.62	216.8	30	28.0	35.7	396	380	347	34.2	94.2	85.0
NC	19.2	28.4	14.0	38.4	5.36	172.7	28	39.9	72.6	377	358	306	26.0	97.6	87.3

Notes	Definitions	Main Data Sources
<p>Years of life lost (YLL): Age standardised YLL rate (per 100,000). The Health Systems Trust only provides this indicator disaggregated by cause.</p> <p>Number of hospital beds: The Health Systems Trust provides the indicator of hospital beds per 10,000 target group and provincial break down; however, it only reflects on the public sector, and district hospitals, so the private sector beds are not reflected.</p> <p>Learner/educator ratio: These data are from databases uploaded on the Learner Unit Record Information and Tracking System (LURITS) and Provincial Data Warehouses as at August 2019. The figures from the School Realities report are preliminary, and the final figures will be published in the more comprehensive Education Statistics in South Africa 2019.</p> <p>Primary school teachers trained to teach: Profiling the production of teacher supply/graduation per phase (Foundation, Intermediate, Senior and FET) is not tracked uniformly in the South African context. There are some academic reports and chapters, but the last Department of Education report, entitled, '<i>Trends in Teacher Education</i>', was produced in 2016.</p> <p>PISA scores: Since South Africa does not partake in PISA, in this table, the authors provide the scores for International Trends in Mathematics and Science (TIMSS) and Progress in International Reading and Literacy Study (PIRLS)</p> <p>Proportion of employment that is vulnerable: The variable used in the South African context is "informal employment". It aims to identify persons who are in precarious employment situations. It includes all persons 15 years and older who are employed in private households and who are helping unpaid in a household business, or working for someone else for pay and are not entitled to basic benefits from their employer, such as a pension or medical aid, and have no written contract; or are working in the informal sector, as well as own-account workers.</p> <p>Proportion of population with access to electricity: The Global Human Development Report uses proportion of the rural population with access to electricity as indicators; however, the South African data do not disaggregate by rural vs. urban or peri-urban type.</p> <p>Proportion of population using safe water: In the South African context, the indicator measured is the proportion of the population using safely managed drinking water services, and it is only available at a national level.</p> <p>Proportion of population using safely managed sanitation services: In the SA context, two indicators are gathered with relevance to this indicator: (i) proportion of population living in households with access to improved sanitation facilities; and (ii) proportion of population using (a) basic sanitation services and (b) a hand-washing facility with soap and water. The authors opted for the first indicator.</p>	<p>YLL: MRC/South Africa definition: The years of life lost, compared to a normative standard, due to premature mortality. This is a mortality measure of the health gap.</p> <p>Physicians per 10,000 population: The data for most countries refer to practising doctors, defined as the number of doctors providing care directly to patients. In South Africa, the Health Professions Council of South Africa (HPCSA) data refer to all doctors registered to practise and will include a proportion of doctors outside of South Africa. This category represents the number of medical practitioners including specialists.</p> <p>Number of hospital beds: This can refer to the total number of hospital beds available per population and can be disaggregated for the public and private sector; it is often represented as total beds per 100,000 population.</p> <p>Learner/educator ratio: The average number of learners per teacher in a given school year based on headcounts for both learners and teachers in public ordinary schools and independent schools (collectively referred to as 'ordinary schools') that are subsidised by the Department of Basic Education (DBE). Primary school teachers trained to teach: South Africa does not capture this; however, the authors provide the graduates from 'initial' teacher education, which is the minimum requirements to teach.</p> <p>Proportion of schools with access to the internet: In the National Education Infrastructure Management System, under Communication Source Facilities, this indicator is disaggregated by whether the purpose is for teaching and learning, or for administrative purposes.</p> <p>Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) scores: international mathematics and science achievement, and South Africa's performance in relation to other participating countries. South Africa's performance in relation to international reading and literacy scores.</p> <p>Proportion of employment that is vulnerable: The amount of people in vulnerable employment is made up of both unpaid family workers and own-account workers as a percentage of total employment.</p>	<p>Columns 1-4: Health Systems Trust of South Africa (after redistributing ill-defined causes of death). Source: District Health Barometer (2015/16)</p> <p>Column 5: Health Professions Council of South Africa (HPCSA). The 2019 data point draws from Tiwari et al. (2021), based on HPCSA data, and excludes the doctors who were located outside of South Africa at the time, those whose location was indicated unknown, as well as the Stats SA mid-year population estimates (2019) Statistical Release P03022019.</p> <p>Column 6: Dell and Kahn. (2017) Geographical maldistribution of surgical resources in South Africa: A review of the number of hospitals. <i>South African Medical Journal</i>, 107(12): 1099-1105.</p> <p>Column 7: Department of Basic Education (2019) School Realities.</p> <p>Column 8: Trends in Teacher Education; Department of Education, 2016 and Stats SA Mid-Year Population Estimates (2016) Statistical Release P03022016.</p> <p>Column 9-10: Department of Basic Education National Education Infrastructure Management System (NEIMS) (2012-2017).</p> <p>Columns 10-12: TIMSS (2019) and PIRLS (2019).</p> <p>Column 13: Labour Market Dynamics (2019) Stats SA.</p> <p>Columns 14-16: Stats SA submission to SANHDR team from its General Household Surveys (2002-2019).</p>

Dashboard 2: Life-course gender gap, provides 13 indicators that display gender gaps in choices and opportunities over the life course: childhood and youth, adulthood and older age. However, some of

the indicators were not available at the provincial level (e.g. school enrolment ratios). These data are usually collected by the Ministry of Education in relevant countries. Furthermore, although there is

information in time-use, it is only available for 2010, because this was the last time that the time-use survey was conducted in South Africa.

Dashboard 2a: Life-course gender gap

	Sex ratio at birth (male to female births)	Youth unemployment rate (female to male ratio)	Population with at least some secondary education (female to male ratio)	Total unemployment rate (female to male ratio)	Share of employment in non-agriculture, female (% of total employment in non-agriculture)	Share of seats held by women in local government (%)	Old-age pension recipients (female to male ratio)
	2020	2019	2019	2019	2019	2019	2019
SA	1.019	1.125	0.976	1.189	44.67	44	1.098
WC	1.021	1.023	1.008	1.216	45.01	36	1.108
EC	1.016	1.125	1.043	0.994	50.44	46	1.062
NC	1.014	1.179	0.951	1.160	44.96	40	1.050
FS	1.010	1.166	0.968	1.179	46.79	47	1.087
KZN	1.020	1.103	0.931	1.126	48.47	43	1.107
NW	1.013	1.065	1.005	1.200	41.31	46	1.141
GP	1.038	1.110	0.997	1.209	42.15	43	1.101
MP	1.005	1.235	0.950	1.322	42.70	50	1.087
LP	1.005	1.207	0.942	1.310	43.69	49	1.057

Notes	Definitions	Main Data Sources
<p>Share of seats held by women in local government (%): The national figure is the figure across all provincial legislatures.</p>	<p>Gross enrolment ratio: This is the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown.</p> <p>Youth unemployment rate (female-to-male ratio): According to the International Labour Organisation (ILO), youth is defined as aged 15–24. Unemployment includes the searching and non-searching unemployed (i.e. expanded definition of unemployment).</p> <p>Population with at least some secondary education (female-to-male ratio): The population aged ≥ 20 years having attained education at the level of at least some secondary education.</p> <p>Total unemployment rate (female-to-male ratio): The working age is 15–64. Unemployment includes the searching and non-searching (i.e. expanded definition of unemployment).</p> <p>Share of employment in non-agriculture, female (% of total employment in non-agriculture): The share of women in employment in the non-agricultural sector, which comprises industry and services activities. This includes informal jobs and work for private households.</p> <p>Old age pension recipients (female-to-male ratio): Individuals aged ≥60 years who have either received a private pension (measured at household level) or an old-age grant (measured at the individual level); raw data are female vs. male share</p>	<p>Column 1: Statistics South Africa, P0305</p> <p>Columns 2–4: United Nations Educational, Scientific and Cultural Organisation (UNESCO) Institute for Statistics (http://uis.unesco.org)</p> <p>Column 5–8: SANHDR team computations based on Labour Market Dynamics in South Africa (4 quarters of the QLFS combined into annual dataset)</p> <p>Column 9: IPU Parline. Global data on national parliaments (https://data.ipu.org).</p> <p>Reference year: 2022</p> <p>Column 10: DPME Development Indicators 2019: Independent Electoral Commission (IEC)</p> <p>Column 11: SANHDR team computations based on the General Household Survey (2017), Stats SA</p>

Dashboard 3: Women's empowerment, contains 14 woman-specific empowerment indicators that allow empowerment to be compared across three dimensions: reproductive health and family

planning, violence against girls and women, and socioeconomic empowerment. The reproductive health and family planning (four indicators) indicators are well covered at the provincial level.

However, there are no data on violence against women at the subnational level or on socioeconomic empowerment at the subnational level.

Dashboard 3: Women's empowerment

	Coverage of antenatal care visit at least one	Proportion of births attended by skilled health personnel	Contraceptive prevalence	Unmet need for family planning	Women married by age 18	Violence against women ever experienced from an intimate partner	Violence against women ever experienced from a non-intimate partner	Female share of graduates in science, technology, engineering and mathematics programmes at tertiary level	Share of graduates from science, technology, engineering and mathematics programmes in tertiary education that are female	Female share of employment in senior and middle management		Women with account at financial institution or with mobile money-service provider	Mandatory paid maternity leave (days)
	2016 (%)	2016 (%)	2016 (%)	2016 (%)	2016 (%)	2016 (%)	2018/19 (%)	2018	2018	Top management	Middle management	2018 (%)	2022
SA	93.7	96.7	59.6	18.7	3.6	20.5	83.4	23.9	52.0	24.4	35.3	43.3	84.0
EC	98.5	92.7	61.0	20.8								36.7	
FS	94.0	96.3	51.1	19.4								42.8	
GAU	89.9	97.6	58.0	18.9								53.9	
KZN	94.5	96.4	65.0	20.7								38.6	
LIMP	95.8	97.8	53.9	24.7								38.2	
MP	91.7	96.4	62.1	16.2								39.7	
NC	92.8	97.6	54.9	20.1								44.4	
NW	97.2	96.0	58.9	16.9								36.8	
WC	94.3	99.2	62.7	11.8								57.5	

Notes	Definitions	Main Data Sources
<p>Antenatal care coverage (at least one visit): While the overall percentage is high, it is important to note that in the South Africa context, there is a much lower proportion if disaggregated by health personnel type. For example, in the EC 2016, the overall proportion was 98.5%; when disaggregated, this primarily consists in attendance by a nurse or midwife (83.6%) and only 11% by a doctor.</p> <p>Mandatory paid leave days: 12 weeks of mandatory maternity leave as per the provisions of the Basic Conditions of Employment Act. However, an employer is not obligated to cover this in full. There is the right to claim from the Unemployment Insurance Fund.</p> <p>Contraceptive prevalence: The data are based on from Demographic Health Surveys on women surveyed. Data are often reported only for women who are sexually active (in a marital or consensual union).</p> <p>Women married by age 18: The SADHS 2016 results indicate that early unions (marriage or living together with a partner as though married) are rare in South Africa. It would be possible to construct a trend if a different definition of this indicator were used based on annual marriage and divorce statistics, which would provide the option of offering a data point as recent as 2020. If three variables are used, age of the bride, year of marriage and province. However, this would most comply with the aspect of it having to be a first union.</p> <p>Intimate partner violence: The SADHS (2016) provides some data that align with UNDP's definition. This allows for provincial disaggregation, but focuses on most recent partners or violence experienced in the last 12 months.</p> <p>Non-intimate partner violence The national percentage combines assaults committed by specified perpetrators in the categories: unknown person, friend/acquaintance, relative or other household member, other and mob. In this survey, 15% of assaults were perpetrated by intimate partners.</p> <p>Female share of graduates in Science, Technology, Engineering and Mathematics (STEM) at tertiary: These data are only for public universities. While there is reporting on private universities in the country's Higher Education Management Information System (HEMIS), there is no STEM disaggregation.</p>	<p>Antenatal care coverage (at least 1 visit): The percentage of women aged 15–49 with a live birth in a given time period who received antenatal care provided by skilled health personnel (doctors, nurses, or midwives) at least once during pregnancy.</p> <p>Proportion of births attended by skilled health personnel: The number of births attended by skilled health personnel (doctor, nurse and/or midwife) expressed as the total number of live births in the same period.</p> <p>Contraceptive prevalence: Percentage of women of reproductive age (15–49) who are using (or whose partner is using) a modern contraceptive method. Contraceptive methods include female and male sterilisation, injectable and oral hormones, intrauterine devices, diaphragms, spermicides and condoms, natural family planning and lactational amenorrhoea.</p> <p>Unmet need for family planning: Women with unmet needs for family planning for limiting births are those who are fecund and sexually active but are not using any method of contraception, and report not wanting any more children. This is a subcategory of total unmet need for family planning, which also includes unmet need for spacing births. The concept of unmet need indicates the gap between women's reproductive intentions and their contraceptive behaviour. For MDG monitoring, unmet need is expressed as a percentage based on women who are married or in a consensual union.</p> <p>Women married by age 18: Proportion of women aged 20–24 years who were married or in a union before age 15 and 18. Both formal (i.e. marriages) and informal unions are covered under this indicator. Informal unions are generally defined as those in which a couple lives together for some time, intends to have a lasting relationship, but for which there has been no formal civil or religious ceremony (i.e. cohabitation).</p> <p>Intimate partner violence: Any act of gender-based violence that is directed against a woman because she is a woman, or that affects women disproportionately.</p> <p>Female share of graduates in STEM at tertiary: Proportion of female graduates that graduated in the STEM fields.</p> <p>Share of STEM graduates that are female: The proportion of graduates in STEM fields that are female.</p> <p>Female share of employment in senior and middle management: South African data disaggregated by top- and middle-level management.</p> <p>Women with an account at a financial institution or with a mobile money-service provider: In South Africa, the General Household Survey (GHS) has a question on whether the individual owns a bank account jointly or individually, and it is possible to isolate for 15 years and up.</p>	<p>Column 1: Health Systems Trust (South African Demographic and Health Surveys 1998, 2003, 2014, 2016)</p> <p>Columns 2–4: Health Systems Trust (South African Demographic and Health Survey 2016)</p> <p>Columns 5–6: South African Demographic and Health Survey (2016), National Department of Health (NDOH), Stats SA, SAMRC and the International Finance Corporation (IFC).</p> <p>Column 7: Governance, Public Safety and Justice Survey 2018/19</p> <p>Columns 8–9: Department of High Education and Training (DHET) statistics on post-school education and training 2018</p> <p>Columns 10–11: Department of Labour, Commission on Employment Equity Annual Report, Appendix A Table on number of employees (including employees with disabilities).</p> <p>Column 12: General Household Survey (GHS) 2018, Stats SA.</p> <p>Column 13: The Basic Conditions of Employment Act (Government Gazette, 5 December 1997) provides for maternity leave under section 25; the payment of maternity benefits are determined by the Unemployment Insurance Act 1966 (Act No. 30 of 1966).</p>

Dashboard 4: Environmental Sustainability

Year	Fossil fuel energy consumption (% of total energy consumption)	CO2 emissions per capita	CO2 emission per unit of GDP	Forest area (% of land area)	Use of fertilizer nutrient nitrogen (N) per area of cropland (kg per hectare)	Use of fertilizer nutrient phosphorus per area of cropland (kg per hectare)	Domestic material consumption per capita (tonnes)	Number of deaths and missing persons attributed to disasters (per 100,000 population)	Red list index ²
2004	86.99	7.9	1.6	14.54	5.98	0.44		472	0.9035
2005	87.16	7.9	1.5	14.51	7.10	0.05		407	0.9028
2006	87.11	8.2	1.5	14.48	5.83	0.35		378	0.9021
2007	87.72	7.8	1.4	14.45	5.36	0.41	13.87	356	0.9013
2008	88.15	8.5	1.5	14.42	6.41	0.24	14.09	361	0.9006
2009	87.68	8.1	1.4	14.39	6.45	0.25	12.61	334	0.8998
2010	87.46	8.1	1.5	14.36	6.46	0.24	12.36	273	0.8991
2011	87.04	7.6	1.4	14.33	6.27	0.31	11.85	351	0.8984
2012	87.16	7.5	1.4	14.30	6.16	0.33	11.85	355	0.8976
2013	86.58	7.5	1.4	14.27	6.55	0.58	11.88	290	0.8970
2014	86.79	7.4	1.4	14.24	7.12	0.48	12.12	266	0.8963
2015		7.4	1.3	14.21	6.82	0.58	11.69	282	0.8955
2016		7.4	1.3	14.18	7.08	0.47		437	0.8947
2017		7.5	1.3	14.15	7.21	0.27			0.8944
2018		7.4	1.3	14.12	7.70	0.23			0.8940
2019		7.4	1.3	14.09	7.25	0.27			

2. The Red List Index (RLI) shows trends in overall extinction risk for species, and is used by governments to track their progress towards targets for reducing biodiversity loss

Notes	Definitions	Main Data Sources
<p>Three indicators that form part of this dashboard are not uniformly produced for South Africa, and only 1 or 2 data points were available, but not included in this table:</p> <ul style="list-style-type: none"> (i) mortality rate attributed to household and ambient air pollution (per 100,000 population, age-standardised); (ii) mortality rate attributed to unsafe water, sanitation and hygiene services (per 100,000 population); and (iii) degraded land (% of total land area). 	<p>Forest area (% of land area): Land under natural or planted stands of trees of at least 5 metres in situ, whether productive or not, and excluding tree stands in agricultural production systems (e.g. in fruit plantations and agroforestry systems) and trees in urban parks and gardens.</p> <p>Forest area, change (%): Percentage of forest within formally proclaimed protected areas.</p> <p>Annual freshwater withdrawals: Total water withdrawals, excluding evaporation losses from storage basins. Withdrawals also include water from desalination plants in countries where they are a significant source. Withdrawals can exceed 100 percent of total renewable resources where extraction from non-renewable aquifers or desalination plants is considerable, or where there is significant water reuse. Withdrawals for domestic uses include drinking water, municipal use or supply, and use for public services, commercial establishments, and homes. Data are for the most recent year available for 1987–2002.</p> <p>Number of deaths and missing persons attributed to disasters (per 100,000 population): Natural disasters, as defined by this indicator, include the following: excessive exposure to excessive natural heat, excessive exposure to excessive natural cold, excessive exposure to sunlight, lightning, earthquakes, volcanic eruptions, avalanches, landslides and other earth movements, cataclysmic storms, floods and other forces of nature.</p> <p>Red List Index: The Red List Index shows trends in overall extinction risk for species.³</p>	<p>Column 1: World Bank</p> <p>Columns 2–3: Source: IEA, IEA Data Services. www.iea.org/data-and-statistics/data-products</p> <p>Column 4: World Development Indicators</p> <p>Column 5: South African Protected Areas Database (SAPAD), Department of Forestry, Fisheries, and the Environment (DFFE), South African National Biodiversity Institute (SANBI)</p> <p>Column 6: Food and Agriculture Organisation, AQUASTAT data.</p> <p>Columns 7–8: Organisation for Economic Co-operation and Development (OECD) Agriculture and food policy. https://data.oecd.org/agriculture/nutrient-balance.htm</p> <p>Column 9: World Bank based on Stats SA data.</p> <p>Column 10: MCD 1997–2017 as per the MDG report 2019. https://south-africa.goaltracker.org/platform/south-africa/data</p> <p>Column 11: South African National Biodiversity Institute (SANBI)</p>

³ The Red List Index (RLI) shows trends in overall extinction risk for species, and is used by governments to track their progress towards targets for reducing biodiversity loss

Dashboard 5: Socio-economic sustainability

	Total debt service	Gross capital formation	Skilled labour force	Export concentration index	Research and development expenditure	Old-age dependency ratio (%)	Military expenditure as a share of GDP (%)	Ratio of education and health expenditure to military expenditure (%)	Average annual change in overall loss in Human Development Index (HDI) value to inequality	Average annual change in the Gender Inequality Index
2004						8.1	1.4	4.9	-0.005	
2005						7.9	1.5	5.3	-0.004	
2006						8.1	1.3	4.9	-0.004	
2007						8.0	1.2	5.5	0.007	
2008						7.9	1.2	6.1	0.012	
2009						7.9	1.2	6.8	0.022	
2010						7.9	1.1	8.0	0.014	-0.05
2011	558913	627256	50.94	0.153	20254	8.4	1.1	7.9	0.023	
2012	602452	662796	50.82	0.136	22209	8.1	1.1	7.9	0.014	-1
2013	642885	741569	51.35	0.136	23871	8.3	1.1	8.2	0.009	-0.031
2014	774034	764269	51.38	0.124	25661	8.4	1.1	8.3	0.008	
2015	828783	823735	49.15	0.123	29345	8.5	1.1	8.6	0.002	-0.013
2016	957879	807242	49.96	0.124	32337	8.7	1.1	8.9	0.006	-0.056
2017	1012732	843525	50.24	0.128	35693	8.9	1.0	9.4	0.002	-0.089
2018	998359	886202	50	0.134	38725	9.0	1.0	11.5	0.003	
2019	1105080	897990	50.67	0.139	36784	9.1	1.0	12.2		
2020	1013620	703692	51.61	0.156	34485	9.3	1.1	12.2		

Notes

Debt service: Added figures per sector (state and public entity, financial/non-financial corporate sector, household) to derive total debt services: 2006–2020

Export concentration index: The Reserve Bank does not produce this indicator, and the input variables do not neatly align with the South African Revenue Service (SARS) classification, although there are correspondence tables to convert. According to the formula, the Standard International Trade Classification (SITC) is used. Reserve Bank calculations are based on the Harmonised System (HS) classification, which is available from SARS. There are correspondence tables between HS and SITC available on the United Nations Statistics Division (UNSTATS) website.

It was not possible to include the following indicators that usually form part of the dashboard, for South Africa: (i) adjusted net savings; and (ii) average annual change in income share of the poorest 40 percent.

Definitions

Debt service: Available data was at the household level.

Skilled labour force: Proportion of labour force that is employed as managers, professionals and technicians.

Main Data Sources

Columns 1–2: South African Reserve Bank (SARB) 2001–2020.

Column 3: Labour Market Dynamics 2008–2019

Column 4:

Column 5: AFS Stats SA. Gross Domestic Expenditure on research and development (2016/17 – 2018/2019) Centre for Science, Technology and Innovation Indicators (CeSTII), Statistical Report

Column 6: Quantec

Column 7–8: Annual Financial Statements. Stats SA and THE Treasury.

Column 9:

Column 10:

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