



Inclusive Future of Work Republic of South Africa

Country brief prepared for the 1st EWG under the 2019 Brazilian presidency of the $$\operatorname{BRICS}$$

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Abstract

Creating a human-centred future of work for all South Africans will require a balance between tackling the triple challenge of unemployment, poverty and inequality within the context of rapid technological advances, adapting to climate change and achieving higher economic growth rates. South Africa is among the most unequal countries in the world; unemployment, given its intersection with inequality and poverty, is the biggest challenge South Africa faces for achieving decent work and social justice.

Addressing the high levels of unemployment (especially amongst youth) and improving basic education and skills development for the future of work are key priorities. Moreover, supporting enterprises and workers in their transition from the informal to the formal economy in order to achieve decent work and higher living standards, while managing labour migration and strengthening representative labour market institutions, will also be at the core of creating an inclusive future of work.

At the same time, however, paid work will likely become less formal and more insecure for many workers. Rapid technological progress will affect segments of society across South Africa very differently, depending on their readiness for the production processes of the future. At the same time, opportunities for the better educated who have digital literacy skills and access to digital technology will increase. An important consideration in dealing with these challenges to equality is whether labour market institutions and representative organisations are fit for purpose and are able to adequately address the challenges faced by workers and employers in both the formal and informal economy.

Introduction

Although South Africa is an upper middle-income country, the 2nd largest economy and the most industrialised nation on the African continent, the country continues to face high levels of unemployment, inequality and poverty, commonly labelled as the "triple challenge". Addressing this interdependent socio-economic challenge has been the overriding concern of the South African government as well as of organised business and labour for the past decade and will remain a persistent challenge to create a human-centred future of work. The government has sought to address this challenge through a wide range of initiatives, such as social protection packages as well as employment and enterprise development incentive schemes. The National Development Plan (NDP) adopted in 2012 and the corresponding Vision 2030 is a direct response to this challenge. President Ramaphosa reaffirmed the continuing focus on the triple challenge in his post-election State of the Nation Address on 20 June 2019, characterizing it as the most critical challenge for ensuring a human-centered, sustainable future of work for all South Africans.

In the past decade, unemployment levels have hovered between 25-28 percent with the latest figure showing a national unemployment rate of 27.6 percent (StatsSA, 2019) leaving a total of 6.2 million unemployed plus another 3 million discouraged work seekers. Latest youth (15-24 years) unemployment figures stand at 55.2 percent of which 3.4 million young people (equivalent to 33.2 percent) are neither in employment, education or training (NEET). Whereas 65 percent of all employment is in the formal sector, 2.9 million South Africans are still seeking out a living in the informal economy.

South Africa is regarded as one of the most unequal countries in the world with an overall Gini-coefficient of 0.63 and with high levels of inequality across wage, wealth and consumption as well as in terms of access to basic services (Sulla, 2018). Although the country has made remarkable progress on the multi-dimensional levels of poverty, 55.5 percent of South Africans still live in poverty based on the upper-bound national poverty line (StatsSA, 2017). Real GDP growth remains low, projected at 1.5 percent for 2019 (EIU, 2019), which reveals the continuing difficulty in addressing the triple challenge. The Government is pushing ahead with reforms to attract investment and to boost economic growth and job creation while restructuring struggling state-owned companies that are straining the national budget, such as the national electricity utility, which is deemed critical for economic growth.

The government, in partnership with employers' and workers' organizations, is embarking on a series of jointly-agreed priorities and interventions as outlined in the 2018 Jobs Summit (RSA, 2018) that respond to the unemployment challenge, particularly the grave levels of youth unemployment. Examples are the Expanded Public Works Programme (EPWP), including the Community Work Programme (CWP), the Employment Tax Incentive (ETI) scheme offering tax credits to firms hiring young

workers, and the Youth Employment Service (YES) aimed at providing one million youth with paid one-year internships and a first work-place experience.

South Africa's commitment to addressing climate change and its Intended National Determined Contributions (INDCs) to mitigate and adapt to climate change and its transition to a low carbon economy must be seen in the context of solving the triple challenge and investment requirements for both. Further, the South African government adopted in early 2019 a policy on Science, Technology and Innovation with the goal of "... enabling inclusive and sustainable South African development in a changing world" (RSA, 2019).

Main drivers of the future of work and expected developments

President Ramaphosa, who was also the co-chair of ILO's Global Commission on the Future of Work, highlighted seven priorities in the recent State of the Nation Address, which are closely aligned with the recommendations of the Global Commission. In particular, the President emphasised that to tackle the triple challenge and to meet the goals of the NDP the government will focus inter alia on economic transformation and job creation as well as on education and skills (RSA, 2019b). The implementation of these priorities will be shaped by an interplay of global and local factors such as increased automation of production processes, artificial intelligence, labour migration and adaptation to climate change, on the one hand, and against the local realities of inequality, unemployment, poverty and informality on the other.

The **poverty, inequality and informality** nexus is an important driver of the future of work, inextricably linked to education and labour market opportunities. The public education system does not sufficiently prepare young men and women for the transition from education to the labour market¹. Furthermore, the share of the workforce in the informal sector is higher in poverty-stricken areas. This is closely linked to the legacy of spatial planning during the apartheid era. Any discussion of the future of work in South Africa therefore must factor in the informal economy and the spatial rural urban divide.

Another important driver of the future of work is **immigration and labour migration**, which is intrinsically linked to South Africa's history and economy. For decades, labour migration was shaped by the need for workers in the labour-intensive industries such as agriculture and mining. A recent study on the economic contribution of immigration to

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¹ The unemployment rate among youth aged 15 to 24 is 55.2%. It is higher for youth with less than secondary education level (58.4%), but lower for those with secondary level (55%), among university graduates (31%) and for those with other tertiary education (47.5%). (StatsSA, 2019)

South Africa's economy (OECD/ILO, 2018b) suggest that migrant workers make a significant contribution to the South African economy. The report finds that immigrants are well-integrated into the labour market in terms of employment and contribute an estimated 9 percent to GDP. South Africa has become increasingly aware of the need to effectively manage immigration and integrate migrants into the labour market. The 2017 White Paper on International Migration (DHA, 2017) marked a shift to a greater emphasis on capturing the economic benefits from migration.

Another important driver of the future of work is **technological development**, such as digitalization, artificial intelligence and automation of production processes, which is likely to have an impact on jobs and occupations. Increased digitalization and automation are thought to affect both the quality and quantity of jobs. The future impact, especially in South Africa's manufacturing industry, is unclear as machines are indeed foreseen to take over a range of mundane and repetitive tasks currently performed by workers. This is especially the case in the automotive and garment and textile industry where automation has increasingly replaced human labour. However, the government's focus on labour intensive job creation to address the triple challenge may in the short term mitigate the negative impact of technological change since investments in new technologies might remain at least as profitable as existing (labour intensive) alternatives in some industries.

The governments' focus on job creation is, for instance, reflected in the allocation of government tenders. Enterprises that compete for public tenders may therefore choose not to automate and find other means to increase labour productivity while refraining from job cutbacks, as recommended in the Jobs Summit Framework agreement with organised business and labour. This Framework calls for inclusive growth interventions based on improved workplace collaboration that contribute to the productivity and sustainability of enterprises (RSA, 2018).

Furthermore, rapid advances in **Information and Communication Technology (ICT)** over the past decade have opened up new ways of economic and social activity. Today, although only 21.8% of households have a computer, 61.8% have internet access. This points to the rapid growth in mobile internet subscriptions (ITU, 2019)². Internet accessibility and the increased use of electronic (internet or app-based) and mobile (smartphone) money transfers create a favourable environment for using online services. Another trend facilitated by advancing ICTs is the emergence of digital labour platforms offering job opportunities to an increasing number of South Africans. Digital labour platforms include both web-based platforms, where work is outsourced through an open call to a geographically dispersed crowd, and location-based applications, which allocate work to individuals in a specific geographical area. Freelancers have become routine in

² There are 31.18 million active internet users and 28.9 million active mobile internet users in South Africa today (Statista, 2019).

work sharing spaces operating in different fields from arts and culture to translation, industrial design and high tech programming occupations.

Finally, adaptation to the challenges of **climate change** is going to be an important driver of the future of work in the coming decades. South Africa's industrialisation, along with its current reliance on coal and natural resources, have resulted in high greenhouse gas (GHG) emissions and a large ecological footprint. South Africa is the 14th largest emitter of GHG globally accounting for 1.3 per cent of global emissions (WEF, 2019). The production of coal-based electricity accounts for more than 80 percent of all emissions (RSA, 2017). South Africa is a signatory to the Paris Agreement on Climate Change and is committed to addressing climate change and a just transition towards an inclusive, environmentally sustainable and climate-resilient economy. A well-developed legal and regulatory framework exists with a series of green economy-related policies. Large investments are taking place in renewable energy through among others the independent power producer programme with R193billion (USD13 billions) investments approved for 6,327MW of renewable energy generating capacity across 92 projects (PAGE, 2017).

Opportunities and challenges for workers, enterprises and labour institutions

With regard to **high levels of unemployment**, the youth aged 15–24 years are the most vulnerable in the South African labour market as shown above. The graduate unemployment rate is increasing, but it is still lower than the rate among those with lower educational levels. This implies that education and training remain centrally important to improving young people's prospects, especially in a rapidly changing world of work. While educational attainment has been on the rise, many South Africans leave the education system with poor foundational skills (such as numeracy and literacy) and are therefore ill-equipped for the demands of today's labour market as well as higher education opportunities (National Skills Authority, 2019). South Africa also faces high qualification and field-of-study mismatches. Limited availability of tertiary-qualified workers has meant that employers looking for high-skilled workers in emerging and innovative sectors have had to hire underqualified workers as well as foreign workers (see also below). At the same time, the large pool of available unemployed high-school graduates has led to the displacement of those without qualifications, as employers are filling low-skilled positions with high-school graduates instead, generating a situation of skill-related underemployment. The result is that a staggering 52 percent of all people working are either overqualified or underqualified in the job they have resulting in an unproductive mismatch in South Africa. In addition, more than 30 percent of South African workers are employed in an occupation unrelated to the field of study in which they hold a qualification. (OECD, 2017).

With regard to **labour migration**, South Africa is one of the few middle-income countries where the impact of immigration has been analysed in some depth. The joint ILO-OECD report (2018b) on the economic contribution of immigrants in South Africa shows that i) migrants have a positive impact on economic growth, and immigration is unlikely to depress GDP per capita; ii) immigrants may also generate additional employment opportunities and improve wages and help reduce unemployment rates and, iii) when migrant workers are employed in the formal economy, their employment can have a positive effect on public finance. In South Africa immigrants have a positive net impact on the government's fiscal balance (ILO/OECD, 2018b). However, xenophobic attacks have taken place, especially against foreign retail shop and small business owners across communities in recent years.

With regard to the **platform economy**, the growing range of services available online encompasses the ride sharing industry, home sharing platforms, labour intermediation in traditional sectors – such as domestic work, electricians, plumbers – and more high end IT and graphic design industries. In these arrangements, workers are paid by the task and are treated either as independent contractors or as casual workers with no specific contractual duration ("zero-hours contracts"). While this type of non-standard employment has a high degree of autonomy, it is also often characterized by high job insecurity, low pay, lack of collective representation, and a lack of social protection (ILO, 2016, ILO 2018). Basic social insurance coverage exists on some digital platforms, but is often voluntary and at the discretion of workers, when available. For example, Uber South Africa has partnered with KaeloXelus to offer medical coverage to Uber drivers through the MyHealth App (Old Mutual, 2019).

In terms of **labour market institutions**, South Africa has been hailed for its strong labour market governance institutions in the area of social dialogue and collective bargaining, dispute resolution and labour law compliance since its attainment of democracy in 1994. Concerning social dialogue, the National Economic Development and Labour Council (NEDLAC) is the main institution with membership drawn from the traditional tripartite partners plus community-based organizations. NEDLAC has been instrumental in the adoption of policies and legislation to help shape an inclusive and transformed labour market in the areas of employment equity, freedom of association, collective bargaining, dispute resolution and protection of the employment relationship.

However, to address critical labour market challenges, such as the triple challenge, government departments have implemented many initiatives without the involvement of NEDLAC, which has eroded the institution's importance and relevance.

Furthermore, NEDLAC suffers from an image of being biased towards the formal economy in a context of rising informality. More and more workers are in non-standard forms of employment and therefore not covered by collective agreements. There is also an increasing number of small employers/businesses who are not represented by

existing employers' organizations. Their voices are not being heard due to lack of representation and therefore absent from NEDLAC policies. .

With regard to **technological advances** and the foreseen impact on the labour market and the future of work, South Africa is characterised by two overlapping divides: First, between its richest and poorest layers, deepened by mass unemployment and, second, between a highly developed segment of the private sector characterised by capitalintensive industries with advanced technology and a less developed private sector with less capital-intensive industries continuing to rely on unskilled and semi-skilled labour. The advance of technology is likely to impact these segments very differently. The World Economic Forum's Readiness for the Future of Production Report (WEF, 2018) assesses 100 countries, including South Africa, in terms of their readiness for inclusive transformation and growth in the future. The WEF (2018) benchmarking and diagnostic model focuses on the complexity and scale of the current production (structure of production) as well as on a series of key enablers to capitalize on emerging technologies to transform production systems (drivers of production), such as technology and innovation, human capital, global trade and investment and demand among others. Whereas South Africa has the strongest structure of production within Africa, the performance is more mixed across the drivers of production. Despite its strong innovation culture and entrepreneurial activity in the innovation space, lack of access to skilled human capital and particularly a shortage of engineers and scientists as well as workers with general digital skills pose a severe challenge in terms of preparing for the future of production (WEF, 2018). The WEF classifies countries in four categories in terms of readiness, with South Africa in the lowest category as "nascent" with limited a current base and "at risk" for the future. Of the BRICS countries, South Africa shows the lowest levels of readiness for the future of production, followed by Brazil, India and the Russian Federation. Only China is among the 25 leading countries in the world.

In terms of addressing the effect of **climate change** and limiting GHG emissions, as mentioned earlier, more than 80 per cent of South Africa's electricity generation comes from coal, but still only 85 per cent of the population have access to electricity (SE4All, 2018). South Africa continues to make massive investments into its struggling coal fired power plants as a means to solve its acute energy challenges brought upon by mismanagement of the state-owned power producer. The government stresses that programmes to increase efficiency and reduce emissions intensity are in place and must be pursued; nonetheless, progress will take time and the INDC should be understood in the context of these critical challenges (INDC, 2015). Still, investments in renewable energy are taking place. Especially smaller scale renewable energy projects are seen to allow for improved access to (renewable) energy, and are undermining the myth that coal-fire power plants are the only way of giving electricity access to poor citizens (The Economist, 2019).

South Africa, as elsewhere, has used large scale coal-fired power generation and grid infrastructure to power large urban centres, but has often bypassed the poorest who are

near the grid and excluded those in rural areas entirely (Granoff et al., 2016). This is foreseen to change with more investment in the smaller renewable energy independent power producer programme (REIPPP), which will create opportunities for small enterprises as well as employment opportunities in the green economy, including skills development for green jobs. Trade Unions in South Africa, especially those representing workers in coal mining and the coal industry, have opposed the REIPPP, claiming that it would lead to severe job losses in the sector.

This opposition demonstrates how mitigation and adaptation to climate change have generated fear of job losses across a range of sectors and occupations and especially among workers' organisations. The "minerals-energy complex" has shaped the South African economy into a carbon intensive mineral extraction economy with jobs in primary "brown" industries. Shifting away from fossil fuels will result in the decline and eventual replacement of some industries, particularly energy-intensive industries and mining. The exact number of job losses in these brown industries, the number of workers affected and the impact on communities due to droughts, floods, increased temperatures remains speculative.

Policy responses

In addition to addressing the quality and outreach of basic education, promoting skills **development** is evident in many government plans and strategies. Several initiatives have been undertaken to better align skill supply with demand, including: bursary and loan system to increase participation in further education and training; a National Skills Fund to finance certain skill development programmes; skills recognition tools for individuals without formal qualifications, i.e. recognition of prior non-formal learning; a career advice system; incentives to encourage employers to provide workplace training; and the introduction of a Critical Skills Visa. To address the persistent gap between the skills needed in the labour market and those offered by the workforce, a strategic and systematic process of skills anticipation for an inclusive future of work is essential. This enables training providers, young people, policy-makers, employers and workers to make better educational and training decisions, improving the use of skills and human capital development (ILO, 2015). The Labour Market Intelligence Partnership (LMIP) Project is a unique partnership between the South African government and the research community designed to generate strategic information and intelligence for skills planning (www.lmip.org.za).

Lifelong Learning (LLL) is central to managing the different transitions that workers will face over the course of the life cycle as reaffirmed in the ILO Centenary Declaration for the Future of Work (ILO, 2019). This approach raises fundamental questions about the respective responsibilities of governments, workers and enterprises in making choices

about when and how to reskill and retrain and how to achieve sustainable financing. (ILO, 2018). South Africa should explore opportunities to strengthen its lifelong learning system in line with the recommendations in the Centenary Declaration.

The Government of South Africa acknowledges the benefits of migration in terms of attracting skilled labour to key sectors of the economy while being aware of the importance of further developing the national skills base in preparing for the future of work. The labour migration policy currently under development is also part of a regional drive to better manage migration flows and benefit from the opportunities arising from such flows. The Southern African Development Community (SADC) Labour Migration Policy Framework indeed commits all Member States to develop labour migration policies. Due to the importance of **labour migration** at the national and regional levels, South Africa's Department of Home Affairs adopted an international migration policy and the Department of Labour, with support from the ILO, started its labour migration policy development process. A first draft was produced in June 2019 for internal discussion.

With regard to **social protection** in the platform economy, gig workers tend to be categorized as self-employed or independent workers, which has implications for the social security of digital platform workers. In South Africa, self-employed workers are not covered under maternity and sickness social insurance nor under the national Unemployment Insurance Fund (UIF). Investigations are ongoing at the South African Human Rights Commission to bring the self-employed under the coverage of maternity insurance.

However, workers classified as dependent self-employed are recognized as employees and covered by UIF. Consequently, domestic workers and many mining contracts, as well as cleaning and domestic services, are covered for risks of unemployment, sickness, maternity, and death. Specifically in regard to the gig economy, the Commission for Conciliation, Mediation and Arbitration (CCMA) in South Africa recently issued a ruling that seven Uber drivers who had been 'deactivated' from the Uber platform were not independent contractors and should be considered employees. This means that these drivers are protected by the Labour Relations Act and the Basic Conditions of Employment Act (GoLegal, 2017). This has been a single case so far.

From an **informal economy** perspective, policy responses must take into account the spatial divide, which creates specific challenges for informal economy units and workers in townships. Firstly, zoning restrictions and permissions as well as the provision of services and premises must be sensitive to the economic logic of why enterprises have chosen to be located where they are, including local and sector-specific peculiarities, demand and income levels (Philip, 2018). Applying standard modernist city planning and zoning approaches in the township context is hindering economic development of township communities. At the same time, one must be equally aware that negative externalities could arise due to, for example, noise, crowding and pollution that affect households and other enterprises negatively, both in township and formal business

areas. Secondly, policy-makers in South Africa should consider measures to enable and capacitate owner-operators with the necessary skills and know-how to gain access beyond local markets.

With regard to **labour market institutions**, recent legislative amendments have been designed to further strengthen employment equality, protection of temporary employees, and freedom of association for workers in temporary employment. It is still too early to assess the impact of the amendments. The CCMA has adopted a 5-year Strategic Plan with a focus to invest more on dispute resolution by assisting firms with grievance handling and dispute management at the enterprise level. Furthermore, the institution is investing in more relationship building between trade unions and workers at the shop floor and sectoral level to facilitate smooth collective bargaining.

In terms of **technological development**, the Government of South Africa is acutely aware of the need to prepare for the future, and President Ramaphosa has established the Presidential Commission on the Fourth Industrial Revolution (4IR). The Terms of Reference for the commission and its members was announced on 9 April 2019 by the Minister of Communications. The commission will coordinate the development of the national response and seek to develop policies, strategies and action plans to position South Africa as a leading country in the evolution and development of 4IR (Government Gazette, 9 April 2019). The mandate of the commission includes the development of an integrated national framework to respond to 4IR with recommendations for interventions in key economic sectors including skills anticipation for the future of work as well as providing advice on interventions to enable entrepreneurship and small and medium sized enterprise to take advantage of 4IR.

With regard to addressing **climate change** South Africa has a well-developed policy framework. South Africa has implemented its vision of transitioning to a greener economy through an extensive policy and regulatory framework. The 2017 green economy inventory developed jointly by the department of environmental affairs and UN Agencies under the Partnership for Action on Green Economy (PAGE) highlights a policy environment with a total of 32 policy frameworks, strategies, policies or Acts focusing on environmental sustainability and sustainable growth. The inventory also shows that key sectors of the economy as well as all nine provinces are pursuing green economy investments. Energy, transportation and agriculture as the most active sectors with initiatives in solar and bio-energy, non-motorised transport and planning, and farming. The Green Economy Accord, signed in 2011, was the outcome of social dialogue between government, organised business and trade unions and is the first tripartite and multistakeholder effort to identify the tangible benefits of a green economy transition.

Going forward the challenge of the South African government, organised business and labour is to manage a just transition to a low carbon economy that phases out coal fired power plants, meets the energy needs for sustainable economic growth and tackles the triple challenge of poverty, high inequality and high levels of unemployment. The

National Planning Commission has embarked on a process of reviewing and revising the National Development Plan 2030 and especially Chapter 5, which deals with environmental sustainability and the transition to a low carbon economy. Currently, pathways are being explored and developed with organised business and labour for a just transition to a low carbon future that is focusing on an economy-wide and society-wide approach aiming at addressing job losses, reskilling and upskilling, social protection as well as identification of areas of trade-offs while building social cohesion and agreements with social partners (NPC, 2019).

Bibliography

Berg, J. 2016. *Income security in the on-demand economy: Findings and policy lessons from a survey of crowdworkers*, International Labour Office, Geneva.

Dorfman M. 2015. *Pension Patterns in Sub Saharan Africa*, Social Protection and Labour Discussion Paper 1503. World Bank

PAGE. 2017. *Green Economy Inventory for South Africa: An Overview*. Pretoria, South Africa.

Gillwald, A., Mothobi, O., Schoentgen, A. 2017. What is the state of microwork in Africa? A view from seven countries, Policy Paper Series n. 2, Research ICT Africa

Golegal. 2017. *The Gig Economy – A silent revolution that is set to change the face of employment law*. Online available: www.golegal.co.za/gig-economy-employment-law

Granoff, I., Hogarth, J.R., Wykes, S. and Doig, A. 2016. *Beyond coal: scaling up energy to fight global poverty*. London: Overseas Development Institute.

Hunt, A. and Machingura, F. 2016. *A good gig? The rise of on-demand domestic work,* Working Paper 07, Overseas Development Institute.

ILO. 2016. Non-standard employment around the world: Understanding challenges, shaping prospects. Geneva.

ILO. 2017. Strengthening social protection for the future of work, Paper presented at the 2^{nd} Meeting of the G20 Employment Working Group.

ILO. 2017. World Social Protection Report 2017-19: Universal social protection to achieve the Sustainable Development Goals. International Labour Office, Geneva.

ILO. 2018. *The impact of technology on the quality and quantity of jobs*, Issue Brief #6, Global Commission on the Future of Work.

ILO. 2018. *Skills policies and systems for a future workforce*, Issue brief #8, Global Commission on the Future of Work.

ILO. 2018. *Innovative approaches for ensuring universal social protection for the future of work*, Issue brief #12, Global Commission on the Future of Work.

ILO. 2018a Women and Men in the informal economy, third edition.

ILO. 2018b. *Innovative approaches for ensuring universal social protection for the future of work*, Issue Brief prepared for the 2nd Meeting of the Global Commission on the Future of Work, No. 12. International Labour Office, Geneva.

ILO. 2018. Digital labour platforms and the future of work: Towards decent work in the online world. Geneva.

ILO. 2019. ILO Centenary Declaration for the Future of Work Adopted by the 108th International Labour Conference, Geneva 21 June 2019.

ILO/OECD. 2018a. *Promoting adequate social protection and social security coverage for all workers, including those in non-standard forms of employment*, paper prepared for the G20 EWG meeting, Buenos Aires, 20-21 February 2018

ILO/OECD. 2018b. *How Immigrants Contribute to South Africa's Economy*. Paris. Available at www.ilo.org/eclm.

ISSA. 2017. Formalizing enterprises and workers in the shared economy (transporting passengers using mobile applications: Uber, Cabify, Easy Go). A case of the Social Insurance Bank.

International Telecommunication Union. 2019. South Africa Profile (latest data available: 2018). Online available: www.itu.int/net4/itu-d/icteye/CountryProfileReport.aspx?countryID=7

Konkolwesky, H.-H. 2016. *Does Uber signal the end of social security*. Online available: https://iloblog.org/2016/07/28/does-uber-signal-the-end-of-social-security/

McKinsey & Company. 2016. *Independent Work: Choice, Necessity and the Gig Economy*, McKinsey Global Institute.

National Planning Commission. 2019. NPC Pathways for a Just Transition, Labour Roundtable Report, O.R. Tambo Debate Series, 17 May 2019.

OECD. 2017. Skills for Jobs Database, South Africa Profile. Online available: www.oecd.org/els/emp/skills-for-jobs-ZAF.pdf

Old Mutual. 2019. *Uber adds more perks for Driver-Partners*. Online available: www.oldmutual.co.za

Philip, K. 2018. *Limiting opportunities in the informal sector: The impact of the structure of the South African economy*. In: FCvN (ed) The South African Informal Sector: Creating Jobs, Reducing Poverty. HSRC Press, Cape Town. Chapter 12

Republic of South Africa. 2017: The National Climate Change Response Policy, Tracking South Africa's Nationally Determined Contributions, Portfolio Committee, 13 June 2017.

Republic of South Africa. 2018. Presidential Jobs Summit, Framework Agreement, 4 October 2018.

Republic of South Africa. 2019a. State of the National Address. Online available: www.gov.za/sona2019

Republic of South Africa, 2019b: White Paper on Science, Technology and Innovation, Department of Science and Technology.

StatsSA, 2017: Poverty Trends in South Africa An examination of absolute poverty between 2006 and 2015.

StatsSA 2019: Quarterly Labour Force Survey, Quarter 1 2019, Department of Statistics, Republic of South Africa.

Sustainable Energy for All (SE4ALL). 2018. Access to electricity data, South Africa, World Bank, Sustainable Energy for All, https://data.worldbank.org/indicator

The Economist. 2019. *How to solve South Africa's energy crisis?* The Economist, 20 April (www.economist.com/middle-east-and-africa/2019/04/20/how-to-solve-south-africas-energy-crisis)

The Economist. 2018. *The sharing economy, African style. Special Report.*https://www.economist.com/special-report/2017/11/10/the-sharing-economy-african-style

The Economist Intelligence Unit, South Africa Country Report, June 2019

Weihermann, R. 2018. *Social security contributions for internet platforms such as Uber, Airbnb and MyHammer?* Online available:

https://www.lexology.com/library/detail.aspx?g=64d66a84-6d5d-4460-bd7d-a0de275d9820

Woodcock J. and Graham M. 2018. *The fairwork foundation: assessing and responding to the online gig economy*, University of Oxford. Paper presented at ILERA World Conference 2018.

World Bank. 2016. World Development Report 2016: Digital Dividends. Washington, DC.

World Bank. 2018. Overcoming Poverty and Inequality in South Africa, An Assessment of Drivers, Constraints and Opportunities. Washington, DC.

World Economic Forum (WEF). 2018. Readiness for the Future of Production Report 2018. Geneva.

World Economic Forum (WEF). 2019. Chart of the day: These countries create most of the world's CO2 emissions [website, last accessed 21/08/2019] www.weforum.org/agenda/2019/06/chart-of-the-day-these-countries-create-most-of-the-world-s-co2-emissions/