



Article

Scenarios for a Poverty Free South Africa

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Abstract

Poverty, inequality, and unemployment (PIU) are persistent problems in South Africa. The dominant view is that these can only be resolved through addressing unemployment. By decoupling unemployment from inequality and poverty, the article challenges the underlying PIU metaphor: unemployment is the linchpin of the South African PIU problem. Four non-collapse scenarios were developed, all of which address poverty. The scenarios were enriched in a future persona workshop and deepened through a Causal Layered Analysis (CLA). The resulting persona and scenario narratives aim to enrich the discourse around addressing the PIU triple crisis.

Keywords

Poverty, Inequality and Unemployment (PIU); Universal Basic Income (UBI); Causal Layered Analysis (CLA); Future Persona; Non-Collapse Scenarios

Introduction

South Africa has a stubborn poverty, inequality, and unemployment (PIU) problem (Statistics South Africa, 2019a). Since the inception of democracy in South Africa the government has aimed to eradicate these, but the PIU problem remains a major concern for the government, political parties, civil society, and the public. As an indication of how important this problem is, all major political party election manifestos primarily focus on how the PIU problem will be resolved (Democratic Alliance, 2020; 2013; ANC; EFF; VF Plus, 2019).

These manifestos highlight an implicit assumption that poverty and inequality can only be addressed through full employment – this view is shared by the government and many South Africans including scholars. Chibba and Luiz (2011) state that “the interconnectedness of PIU is obvious in societies to even the casual observer.” They further state that in South Africa the labour market and unemployment are the primary drivers for inequality.

Applying the Causal Layered Analysis (CLA) paradigm (Inayatullah, 2008) an underlying metaphor emerges: unemployment is the linchpin of the South African PIU problem. By decoupling the PIU dimensions, this study aims to disrupt this metaphor, leading to new plausible, and desirable socioeconomic futures for South Africa.

The imminent decline and possible collapse of society is prominent in the South African discourse (e.g., Barron; Cameron, 2020). Often at least one of the PIU dimensions is viewed as a driver for such collapse futures.

However, Dator (2009) describes four scenario archetypes: continued growth, transformation, discipline, and collapse. Over the long-term no archetype is more likely and all need to be considered equally. The overemphasis of collapse scenarios is a futures fallacy known as declinism - the belief that everything is tending towards futures that are worse than the past or present (Milojević, 2021). To avoid feeding into this declinism narrative, only alternative futures where absolute poverty had been addressed were explored.

By considering the poverty dimension of the PIU complex resolved, the collapse category of Dator’s (2009) archetypes is excluded. The resulting narratives have the power to enrich the imagination around the future, broaden

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the popular discourse and create new possibilities (Milojević & Inayatullah, 2021).

Poverty, Unemployment, and Inequality Context

While no futures research has been conducted into the South African PIU problem, PIU in post-apartheid South Africa is well researched. The most relevant statistics and trends from this body of knowledge are highlighted below.

Poverty

Multidimensional poverty has improved markedly in the past twenty years as the South African Multidimensional Poverty Index shows. Primarily the increase has been due to better service delivery, but financial poverty has also improved due to social grants (Statistics South Africa, 2014).

South Africa is a food secure country and net food exporter. In 2020 the agricultural trade surplus was US\$4,3 billion (Sihlobo, 2021). Despite this, 21.3% of households were food insecure in 2017. Poor South Africans go hungry because they cannot afford to buy food, not because there is no food available (Statistics South Africa, 2019b).

Statistics South Africa (2019c) categorises financial poverty in terms of food-, lower-, and upper-bound poverty lines. Over the past 25 years, financial poverty has decreased across all poverty lines (Statistics South Africa, 2017). In this paper, absolute poverty refers to the upper-bound poverty line.

Work and unemployment

The South African unemployment rate has been above 20% for more than 20 years (Statistics South Africa, 2014). As of the fourth quarter of 2019 the official unemployment rate was 29.1%, while the expanded unemployment rate was 38.7% (Statistics South Africa, 2020). In the early 2000s, unemployment was decreasing, but it has been steadily increasing since 2008 (Statistics South Africa, 2019d).

Low educational attainment is often seen as a key reason for unemployment. While this is an important factor, it cannot explain high unemployment by itself. In the fourth quarter of 2018, 6.7% of South African graduates were unemployed (Business Tech, 2019a). While this is better than the general unemployment rate, it is below full employment.

The fourth industrial revolution (4IR) will see more jobs being automated, even in areas where this was not previously feasible including many middle-class jobs (Manyika, et al., 2017). Jobs held by graduates outside of the science, technology, engineering, and mathematics (STEM) fields, are especially vulnerable to being replaced (Frey & Osborne, 2017). But even STEM jobs might not be safe from automation (Smith & Watson, 2018). Many South African political parties acknowledge that a 4IR economy will make more jobs redundant (ANC; EFF, 2019). However, their policies do not reflect this awareness, as there is a view that improved education will lead to full employment.

With 10% of formal jobs, the state is a major employer in South Africa. In 2019 the public sector accounted for 20% of non-agricultural wages comprising 34% of the national budget. This excludes the employees of State-Owned Enterprises (SOE) (Business Tech, 2019b; Statistics South Africa, 2020).

Despite the high unemployment rate, employed South Africans on average work 42.9 hours a week, which is second only to Mexico (Business Tech, 2019c).

Economic inequality

South African inequality levels have remained amongst the highest in the world for many years (Statistics South Africa, 2019a). Inequality is multidimensional – it exists between rural and urban households, between female- and male-led households, between race groups, and within race groups. Within population groups, the black African group is the most unequal – in 2015 this population group had an income Gini coefficient of 0.63 – while the white population group, with a Gini coefficient of 0.45, experienced the least inequality (ibid.). Table 1 shows the racial make-up of each South African social class. The black African group make up significant portions of each group;

nevertheless, this group remains underrepresented in the upper echelons.

Table 1: Poverty dynamic based social class composition

	Chronically Poor	Transient Poor	Vulnerable Middle-class	Middle-class	Elite	Proportion of population
Black African	94.8%	81.6%	89.7%	45.7%	17.7%	79.9%
Coloured	5.2%	14.0%	9.2%	14.0%	7.0%	8.7%
Asian/Indian	0.0%	2.5%	1.0%	7.7%	10.0%	2.3%
White	0.0%	1.9%	0.1%	32.7%	65.4%	9.1%
Proportion of population	49.4%	12.8%	14.4%	19.7%	3.7%	100%

Source: Schotte et al. (2018) using National Income Dynamics Study (NIDS) data covering the period from 2008 to 2015¹.

While the overall income Gini coefficient improved from 0.717 in 2006 to 0.673 in 2015, for the 2011 to 2015 period, wage income inequality increased. In this period average real wages increased, but wages for the bottom half of workers essentially did not (Statistics South Africa, 2019a) – i.e., real increases were seen primarily for the top percentiles of wage earners. This widening wage inequality is especially concerning as the wages of children and their parents are very strongly correlated, particularly for the poor (Piraino, 2015).

Wealth inequality is also of interest. Piketty (2014) states that if capital income grows faster than wage income, wealth inequality will increase over time. While the stock market does not measure all wealth, Bassier and Woolard (2018) note that in recent years the Johannesburg Stock Exchange All Share Index increased by 9% while labour income increased by 4%. Over long intergenerational periods this leads to extreme wealth concentration. In South Africa the richest 10% earn approximately 57% of income and own approximately 95% of all wealth (Statistics South Africa, 2019a).

Research Method and Design

Scenario development

To explore a poverty free South Africa in 2045, this study uses a scenario approach. Börjeson et al. (2006) state that there are three different types of scenarios: predictive, normative, and explorative. Explorative methods study multiple futures exploring possible developments while normative methods aim to shape and build pathways towards desirable/undesirable futures (Melnikovas, 2018).

There are many different scenario generating methods. Börjeson et al. (2006) identify three common steps: generating, integrating, and testing for consistency. Whereas Kosow and Gassner (2008) describe five common phases: “1) identification of the scenario field, 2) identification of key factors, 3) analysis of key factors, 4) scenario generation [including checking for consistency] and, if necessary, 5) scenario transfer”. In practice checking for consistency “is often carried out in a qualitative and sometimes implicit way” (Börjeson et al., 2006).

Scenario workshops are a tool for collaborative scenario generation. Various perspectives from participants can help to broaden the scenarios and have the potential to increase the acceptance of all scenarios. By using techniques that encourage creativity, this broadening can be further stimulated within a workshop (Börjeson et al., 2006).

This study follows a normative and explorative hybrid scenario approach. To decouple the inequality and unemployment dimensions of the PIU nexus a double variable methodology (Inayatullah, 2008) was deemed most suitable. By choosing each of the dimensions as pivotal uncertainties and plotting them against each other (Kosow & Gassner, 2008), there is a forced separation of these factors.

The results from a wide environmental scan – as proposed by Choo (1999) – which was conducted over a six-month period, were grouped using the STEEP (social, technological, ecological, economic, and political/legal) framework (Morrison, 2021), and analysed for weak signals and possible emerging trends. Finally, key factors were

identified from this information which were then developed into four plausible socioeconomic scenarios around the unemployment and inequality uncertainties.

This reverses the usual order of the double variable scenario method, where typically the pivotal uncertainties are identified from the key factors (Kosow & Gassner; Inayatullah, 2008).

Future persona workshop

In line with the fourth pillar of futures studies (Inayatullah, 2008), the scenarios were deepened using the future persona method as described by Fergnani (2019). Through the adaptation of marketing concepts for customer persona development, Fergnani (ibid.) describes a step-by-step process for the creation of a future persona that builds on the rich futures studies tradition of day-in-the-life scenarios (e.g., Ross, 1982; Sheraz et al., 2013; Schultz, 2015).

To create the future personas, a workshop consisting of approximately 40 people from diverse backgrounds was held. After an introduction, the workshop was split into smaller groups; one for each scenario. The groups produced personas from a poor and from a middle-class background for each scenario. The personas were given social and demographic backgrounds representative of the statistics around the PIU problem. Furthermore, each persona was given a common, easily pronounced South African name to enable the participants to better relate to each individual. The personas were all made to be approximately 30 years old in 2045; this ensured that they would experience major changes in their youth.

The groups were presented with basic facts from the scenarios and for every persona. They were then tasked to address questions about the future from each persona's perspective. This allowed for every character's worldview and the underlying myths/metaphors of the futures they inhabit to emerge in a natural manner. Figure 1 shows the template that was completed during the workshop.

The workshop was recorded, transcribed, and analysed through thematic analysis (Creswell & Poth, 2018) and CLA (Inayatullah, 2004; 2008). From this the scenarios were enriched through backcasting and the inclusion of deeper systemic-, worldview/discourse-, and myth/metaphor-level issues that emerged during the workshop (Inayatullah, 2008; Fergnani, 2019; Bibri, 2018). The backcasting was informed by the South African PIU statistics, the environmental scan, and the group discussions around the changes experienced during the youth of each future persona.

Scenario and persona narratives

In addition to the scenario narratives, future persona narratives were also written. These differed from the narratives as set out by Fergnani (2019) in that they brought two personas together. The socioeconomic background of the personas in each scenario is important for understanding the future they live in. Capturing this background in the persona narratives or a list would have been artificial. As such persona backstories were written in narrative form making the personas more memorable (Nielsen, 2011).

According to Morrison and Wilson (1997), narratives about fictitious people and institutions with a high degree of detail and realism are the foundation of good scenarios. Not only do narratives help to get buy-in into scenarios, but they also place social, economic, technological, cultural, etc. context into perspective. The narrative creation is therefore a "holistic form of plausibility and consistency checking" (Kosow & Gassner, 2008).

Milojević and Inayatullah (2015) agree, narratives are powerful for communicating complex ideas, engaging around them, and creating deep learning. But there is a legitimate concern as they can also mislead and create connections where there are none (Kahneman, 2011). To avoid this, the stories in this study were continually aligned with facts. The following approach was used:

- The scenarios were based on an environmental scan.
- Before the workshop, the demographic and background information in the persona outlines was aligned with data representative of poor and middle-class South Africans (Schotte et al., 2018; Statistics South Africa, 2019a). This is consistent with how customer personas should be created based upon statistical consumer data (McGinn & Kotamraju, 2008; Nielsen, 2011).
- After the personas were developed by the groups, the workshop transcripts and completed persona fact

sheets were compared for consistency with the original scenarios using the method set out by Fergnani (2019).

- The changes to the scenarios and the persona biographies resulting from the group discussions were linked to evidence. Based on qualitative analysis best practice as outlined by Creswell and Poth (2018) quotations are used to provide this.
- As a final step all written narratives were reviewed for accuracy, plausibility, and consistency with a selected group of workshop participants.

<p>Name of scenario</p> <p>Key uncertainties combination plus normative low poverty dimension for each scenario (completed before the workshop)</p>	<p>Scenario summary (completed before the workshop) Scenario narrative in two/three lines</p>
	<p>Key facts (completed before the workshop) Scenario key facts in three to five bullet points</p>
	<p>Key policy implications (completed before the workshop) How should negative aspects of the scenario be avoided? How should desirable aspects of the scenario be created?</p>
<p>Persona name</p> <p>Avatar of the persona as a child (completed before the workshop)</p>	<p>Persona basic facts (completed before the workshop) Place and date of birth (age at the time of this scenario): Gender: Social background:</p>
	<p>Questions to be addressed during the workshop:</p> <ul style="list-style-type: none"> • What do they eat for breakfast? • What do they do in their spare time? • What is their highest level of education? • What do they do for a living (job, position, status within organisation)? • How do they travel to go anywhere? • What technology do they use to get through the day? • What is their physical appearance and health status? • What keeps them up at night? • What are their dreams and aims in life? • What are their feelings about the society and/or country they live in? • What are their views of government? • What are their views of organised labour? • What are their views of their company/private sector? • What importance do they place on the ecological environment? • What other institutions have impacted them and what are their opinion of them?

Fig. 1: Scenario and persona fact sheet template used in the future persona workshop. Own creation based on Fergnani (2019)

The Scenarios

Figure 2 summarises the insights gained from the CLA. The scenario descriptions below, are the final narratives developed from the environmental scan which were enriched through backcasting, CLA, the persona factsheets, and the qualitative analysis of the workshop.

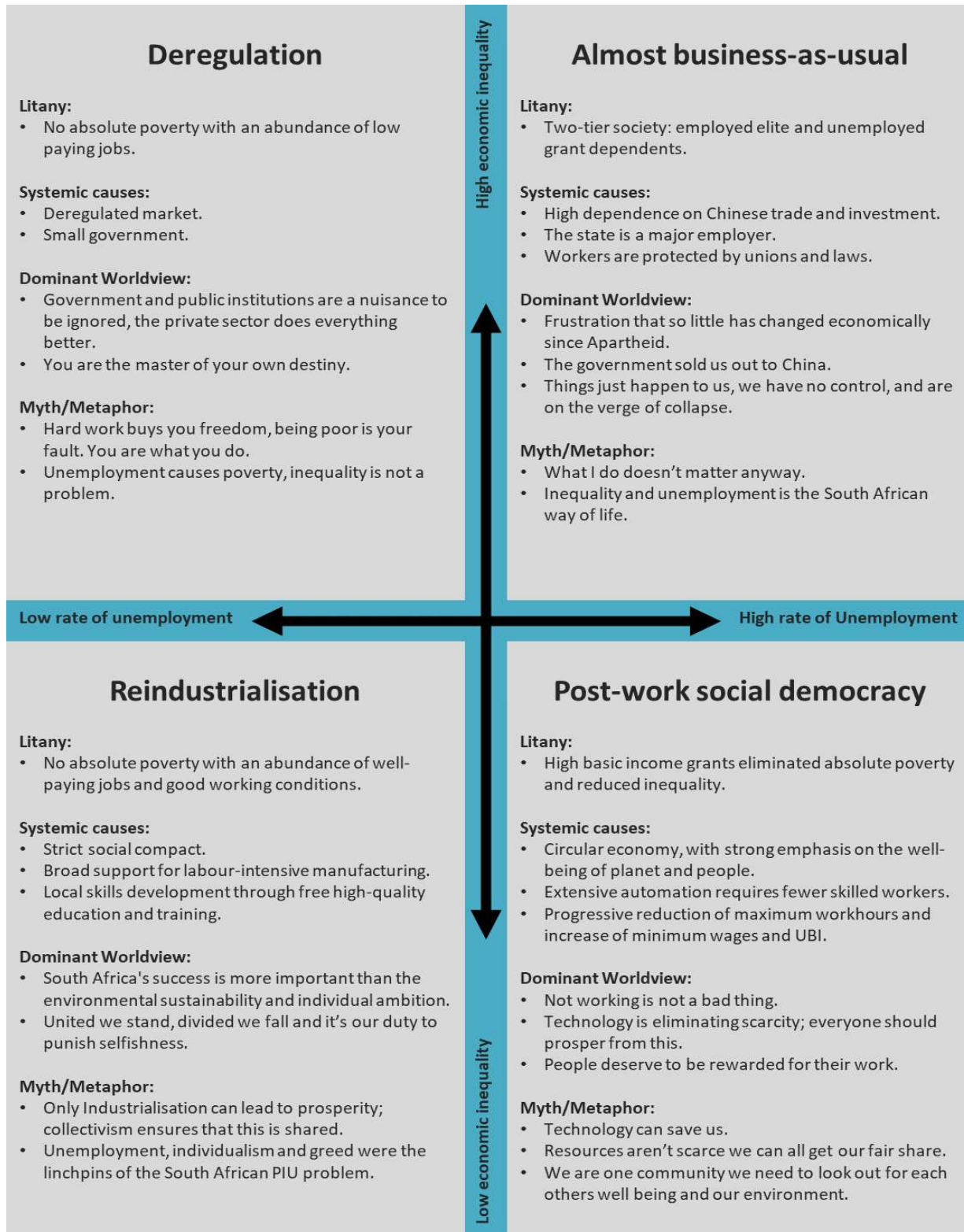


Fig. 2: CLA insights for all scenarios.
Own creation based on methodology by Kosow and Gassner (2008) and Inayatullah (2004; 2008)

```
// HelloWorld.java
public class Hello
public static void main (String [] args) {
    System.out.println("Hello World!");
}
}

public static void main (String [] args) {
    System.out.println("Hello World!");
}
}

// HelloWorld.java
public class Hello
public static void main (String [] args) {
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}
}
```

Deregulation

South Africa is on track to eliminate unemployment through high levels of economic growth. This has essentially eradicated absolute poverty. Unfortunately, with the deregulation of the labour market, many of these new jobs are not high paying, and most of the benefits created through consistent economic growth have been experienced by the top income decile.

Thabo is 31 years old. He was born in Pretoria and raised by both parents in a stable middle-class household. He is well educated and is an independent developer of VR worlds. Thabo is concerned about the inequality and the environment in South Africa. He believes that by being a conscious consumer he can make the world a better place. Because South Africa has become so much wealthier since he was a child, he thinks it is good that the government no longer plays an active role in society.

Siyanda is 30 years old. She was born in the rural Zululand district municipality in KwaZulu Natal. She was raised by her unemployed mother and extended family. Her father was a day labourer in Durban. She is happy that South Africa is doing better than when she was little and that she and her peers have never had to worry about finding work. She sometimes feels like life is unfair and that poorer citizens have been abandoned by the government. Siyanda has always worked hard to become financially stable, but lately she has been wondering if that is possible through hard work alone.

Thabo was frustrated. He had been working all night again. The programme he had been developing for the past month just wasn't working out. He was going to have to explain another delay to his client. "At this rate I will be growing the food here rather than coding," he thought to himself. The thought of food lifted his mood a little. As Thabo was getting excited for his breakfast, Siyanda was just coming into work. She had been working at the Lotus Garden Integrated Sustainable Lifestyle Village for six months now. She was happy to finally be working as a caregiver, all the extra time and money she had spent on the short courses were paying off. She just had the one job now, instead of juggling three and constantly looking for new opportunities – and this job actually had a contract with benefits!

Thabo bought his first house here in the brand-new Lotus Garden complex less than three months ago, he had just turned 31. He knew he was doing well; his parents could have never afforded this at his age. Living here everything was so close, this saved him time. Time, which he used to work more. He knows everything he has depends on his hard work. Even though they called it a "lifestyle village" in the brochure, he knew it was really just a fancy new complex. But Lotus Garden did have more perks than your average security estate. The complex grew its own hydroponic organic vegetables and it even had free range chickens. Thabo felt great about this - commercial food production in SA was dirtier than ever. The complex also did its bit for society; it created so many jobs, not just security, but also farmers, and cooks to provide food 24/7. They also provided all the staff with paid sick leave and ten days of leave a year.

Siyanda went to go check on her first client. The sweet old lady was frazzled. Her breakfast hadn't come. Siyanda calmed her down and went to look what had happened to the breakfast. Thabo had just gotten to the kitchen. He realised that he hadn't left his house in days and if the breakfast had come as it should have, he would be asleep by now. Instead he was here getting frustrated with the excuses from the kitchen.

In the past six months Siyanda had just started to grasp the idea of having some down time. She still worked long hours, but she no longer needed to study in the evenings. She had gotten herself a VR system last month and was seeing new places every night. One of the worlds she visits most often was created by someone who lives here, in Lotus Garden.

When Siyanda got to the kitchen, she met the man who had created the beautiful VR world she loved so much. But, it was not the encounter she had envisaged. Thabo - looking like a wild man, unshaven and in his bathrobe - was berating the poor cook about the breakfast. Siyanda empathised with the young cook; she was used to the elite treating her like this. She stepped in to calm the angry man down and assured him she would get him his food. Only after she also made a plan for her client's breakfast the cook told her who it was that she had spoken to. She was simultaneously starstruck and disappointed at having met Thabo. But, perhaps in the next meeting she could ask him about the beautiful worlds he creates.

Fig. 3: Future persona narrative for the deregulation scenario. The summary at the top was taken from the scenario fact sheet that was presented to each group. All other narratives were produced based on the workshop discussions. Own creation.

Deregulation scenario narrative

In the early 2020s the South African economy hit crisis levels. Economic growth came to a standstill. The SOE crisis worsened, and no plan could be put forward on how the SOEs could be returned to profitability. The Covid-19 crisis coupled with a sovereign rating downgrade made a bad situation worse. The government, facing mass emigration and a tax revolt, decided drastic measures were needed. Markets were deregulated, SOEs were privatised, many labour regulations including minimum wage and black economic empowerment laws were revoked and it became easier for employers to hire and fire. The unions objected to such measures, but the ruling party no longer viewed their support as important.

To attract skills into the country, visa regulations were simplified. Many state employees were retrenched to curtail government expenditure. Fixed prices such as fuel and electricity, were also deregulated to allow for more competition. The health sector and other basic services were largely privatised and as demand grew, they became increasingly accessible to people living in poorer areas.

As the global economy and trade returned to growth paths, investors, both local and foreign, jumped at this economic liberalisation, and invested in South Africa. The economy started to grow again and by 2030 reached consistent high growth levels. SOE privatisation and state employee retrenchments initially caused unemployment to skyrocket, but by the late 2020s unemployment rates were decreasing at an unprecedented rate.

Unemployment is no longer a problem in South Africa in 2045. For several years, the unemployment rate has consistently been below 5% while long-term unemployment has essentially been eliminated. Unfortunately, with the deregulation of the labour market many jobs are not high-paying, and most of the benefits created through consistent economic growth have been experienced by the top income decile. As such, inequality has grown further, and the Gini coefficient now approaches 0.73. Absolute poverty has been eliminated, but the bottom 50% remain relatively poor – their primary income source has changed from government grants to low-paying jobs.

Figure 3 shows the future persona narrative for the deregulation scenario.

Almost business-as-usual scenario narrative

In the early 2020s, most South Africans could clearly see that the economic difficulties the country was facing needed drastic measures to avoid a complete collapse. Unfortunately, disagreement between various stakeholders and infighting within the ruling party led to inaction and no major decisions were made. SOEs continued to require government bailouts and government spending continuously increased while economic growth remained stagnant, and tax revenues declined.

Within a few years of South Africa being declared sub-investment grade by all rating agencies the government was forced to seek an international bailout. The World Bank, the IMF and China were approached for this, and all came back with stringent demands for making money available. The Bretton Woods Institutions called for a large downsizing of public expenditure, stringent austerity measures, and deregulation of the South African economy. The Chinese, on the other hand, demanded extensive mining rights, preferred export and import conditions as well as some control over SOEs. The government decided to opt for the Chinese proposal, as their requirements were seen to be more in line with the existing ideals of South Africa.

Chinese bailout packages and direct investments into infrastructure via the Belt and Road Initiative led to the South African economy growing consistently by the late 2020s. However, as few fundamental changes were made, an environment for large-scale entrepreneurship and non-Chinese foreign investment was not created.

The South African economy became increasingly geared towards supplying China with resources and agricultural produce, while in parallel also becoming a market for Chinese consumer goods which eroded the South African manufacturing sector. As a result, unemployment slowly increased to the current 39%. Yet, through growing tax revenues government could extend its grant system and the provision of basic services to the country's poorest citizens. Absolute poverty levels declined; but the headcount of people living in relative poverty continued to increase. As such inequality also increased to an unprecedented Gini coefficient of 0.76.

Figure 4 shows the future persona narrative for the almost business-as-usual scenario.

Almost business-as-usual

Chinese economic stimulus packages and investments through the Belt and Road Initiative have led to continued economic growth. But no fundamental changes were made to the underlying issues of the economy. The South African economy became increasingly geared towards supplying China with resources, while in parallel also becoming a market for Chinese consumer goods.

John

John is 30 years old. He was born in Durban and raised by both parents in a stable middle class household. He is an independent IT professional. He would like to have more free time but must work hard to support his lifestyle. John feels the government “sold-out” to China and is not doing anything to protect South Africans or the environment.

Leletu

Leletu is 30 years old. She was born in the rural Gert Sibande district municipality in Mpumalanga. She was raised by her unemployed mother and extended family. Her father was a day labourer in Johannesburg. Leletu has a Diploma from the Gert Sibande Technical and Vocational Education and Training (TVET) college. She works as a Robot Technician for a Chinese manufacturer in Johannesburg.

Leletu was taking an evening stroll on the beach. She was happy to get away from her mom for just a few hours. Of course, she was enjoying spending some well-deserved holiday time with her in beautiful Umhlanga but spending so much time with her was a bit much. The constant nagging about how she should consider herself fortunate that she has a job, and all the opportunities that have come from it. But for Leletu there was always a feeling of guilt attached to this. Why was she one of the few people among her friends and family with a stable job? Yes, everyone was better off than when they were children, and for this she was extremely thankful to the work the government had done with the help of China. No one really lived in poverty anymore, yet she couldn’t shake this feeling that there should be more.

Suddenly she was disturbed from her thoughts. “Excuse me,” said a voice, “You dropped your augmented reality sunglasses”. She was astounded by the honesty and thought that this could only happen in a privileged area like Umhlanga. “You are clearly not from around here,” said the man as he passed Leletu her glasses, “I am John, who are you?” “I am Leletu,” Leletu answered, “I’m on holiday here with my mom. I just needed to get away from her for a bit. Thanks for the glasses.” “Well, I can understand that. Parents can be so annoying at times. Anyway, I just finished my surf and am about to meet some friends at Lucky Shaka for a sundowner. I’ve been working so much again lately. It’s really great to take a breather to enjoy our country’s natural beauty and spend time with real people. Perhaps you would you like to join me?” replied John. “The place also sells a proper Durban Curry, not this Chinese stuff you get everywhere these days,” he added. Leletu was tempted by his offer and decided to join.

Fig. 4: Future persona narrative for the almost business-as-usual scenario. The summary at the top was taken from the scenario fact sheet that was presented to each group. All other narratives were produced based on the workshop discussions. Own creation



Fig. 5: Future persona narrative for the reindustrialisation scenario. The summary at the top was taken from the scenario fact sheet that was presented to each group. All other narratives were produced based on the workshop discussions. Own creation.

Reindustrialisation scenario narrative

At the beginning of the 2020s the world faced a global economic crisis. South Africa's problems seemed insurmountable to most commentators, and many predicted the complete implosion of the economy. But as a trend of deglobalisation gripped the world and countries turned inwards to solve their own problems, South Africa decided to turn towards its past and learn from the political transition years in the early 1990s where the complete collapse

of the country appeared to be its only possible future.

The Covid-19 crisis created an environment that enabled various stakeholders to work closer together and a social compact was formed. Government, opposition parties, business, organised labour, as well as many civil society organisations agreed to work together to achieve the common goal to grow the economy, create work for all South Africans, eradicate poverty, decrease inequality, and ultimately build better and safer lives for all South Africans.

What transpired next was a programme the likes of which the world had never seen. Government worked with the private sector to fix its ailing SOEs. Organised labour up-skilled workers and cooperated with employers to create jobs. Civil society organisations promoted South African products and the business sector together with the government started to increasingly invest into South African manufacturing. Citizens across the country formed community action networks and South Africans from all walks of life regardless of race or economic background started to support each other without expecting anything in return. This resulted in increased local consumption and decreased imports. The economy improved, and more local investments followed.

South Africa's high economic growth also attracted foreign direct investment. Demand for South African high-quality goods increased around the world, resulting in a further expansion of the economy. Very consciously – in line with the social compact agreements – the manufacturing resurgence limited automation wherever possible and as such employment was created at a phenomenally fast pace.

The social compact was enforced by all role-players. Activities were coordinated by a strong but non-autocratic state. Businesses that paid large executive bonuses, used automation, or did not buy locally were shunned both by consumers and other companies. Wage negotiations were handled through mutually beneficial agreements and in the few cases where win-win deals could not be reached, arbitration rather than labour action were the norm. Union membership was nearly universal including middle management at most companies, this allowed for profits and the welfare of workers to grow. The great power of the unions was hardly ever felt, long gone were the extended strikes of the early 21st century. But every worker knew that the unions would act quickly and decisively where the social compact was broken - even workers who were deemed to be greedy could quickly lose the protection the union offered.

Today, unemployment and poverty have essentially been eradicated and the remaining few people in need of support receive high unemployment grants. The social compact agreements ensured that the benefits of economic growth were primarily received by the lower income deciles and the Gini coefficient could as such be reduced to 0.41. Through this, South Africa has proven once again to the world what is possible when a society overcomes its differences and works together.

Figure 5 shows the future persona narrative for the reindustrialisation scenario.

Post-work social democracy scenario narrative

Rather than attempting to fight the 4IR, the South African government decided to embrace it. A declaration was made, that with over 30% unemployment, the country was already a post-work society, and that the future South African economy should be based on three pillars:

1. Both paid and unpaid work should be minimised by increasing automation.
2. All South Africans should benefit from the destruction of work.
3. Those who drive the social and economic transformation should be incentivised.

This bold decision completely inverted the PIU complex - the word “unemployment” lost its meaning as it became something to strive for.

A universal basic income (UBI) was introduced in addition to the country's existing grant system. To distribute scarce work more equally, a plan to reduce the maximum work hours to 20 hours per week within 25 years was launched. In parallel, monthly minimum wages and the UBI would be increased annually. Further, as 4IR work required higher levels of skills than the South African workforce had to offer, government and the private sector made a joint commitment to invest into technical skills development. Initiatives like free mobile data and the roll-out of computers to every school and library allowed for mass education and made remote learning facilities available to everyone.

Figure 6 shows an example of the income progression of a minimum wage worker, with the above measures in

place based on the principles of Srnicek and Williams (2015).

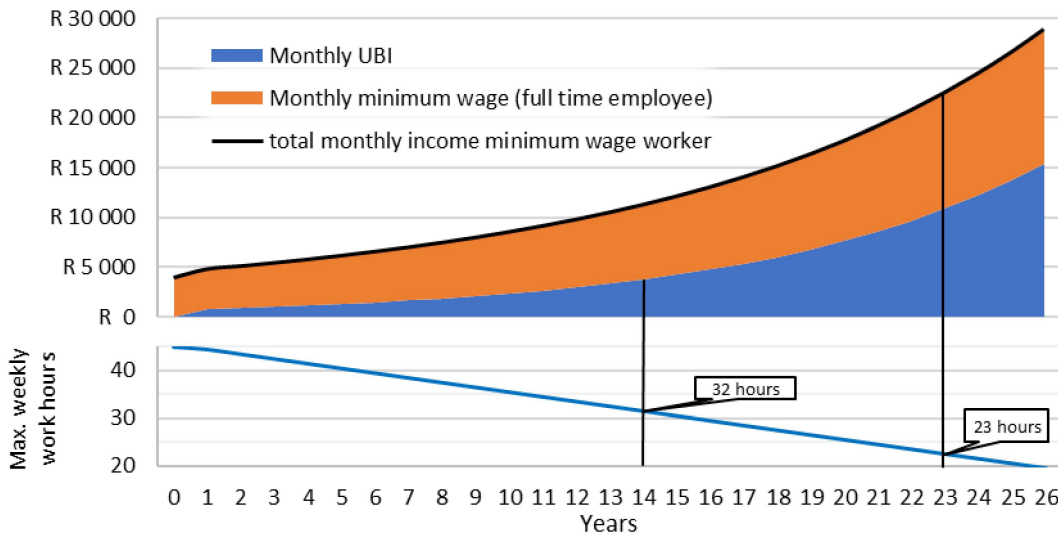


Fig. 6: Example of income progression for a minimum wage worker.

Own creation, based on principle of decreasing maximum work hours while simultaneously increasing minimum monthly wages and UBI (Srnicek & Williams, 2015)². The vertical lines indicate the points where the UBI reaches the 2020 minimum wage, and where UBI and minimum wage are equal. Rand amounts based on 2019 figures.

To kick start economic growth, a largescale deregulation of markets and some labour regulations was conducted. As the goal was to create a society that does not rely on its prosperity through work, all policies that solely aimed to create jobs were cancelled. Investments into technology sectors, renewable energies, and innovation to re-use and reconfigure materials were increased to create a circular economy that placed the wellbeing of the environment and citizens at its centre.

New businesses were created by providing support to entrepreneurs. Furthermore, foreign professionals were invited into the country to help accelerate the transition of South African industries into the 4IR. Ironically, this, together with the decrease in maximum work hours, created more jobs than it destroyed, and the unemployment rate started to decrease in the late 2020s.

Rural South Africa benefitted directly from the UBI cash injection. Further, as low paying jobs in the cities became unattractive, de-urbanisation increased which resulted in more rural opportunities.

Initiatives were also launched that aimed to address the country’s many social problems including crime, gangsterism, and substance abuse. Community programmes for social support, as well as sports-, arts-, musical-, and other cultural-initiatives sprung up all over the country allowing people to contribute positively. In parallel, the social-democratic state also invested in infrastructure, policing, basic services, and housing.

The amount of work started to decline in the 2030s. As such the UBI became an increasingly important primary income for many South Africans. While this had led to a decrease in poverty levels, entrepreneurs and large corporations were the main beneficiaries of the capital-intensive economic growth. As a result, inequality started to rise. A sovereign wealth fund with trustees from the private sector, public sector and the “not-working” was created and all citizens were provided with regular dividend payments. For underage citizens, these dividends were invested back into the economy and paid out as lump sum capital endowments upon reaching adulthood. This gave young South Africans the possibility to invest in their own start-ups, education, or anything else of their choosing. Society as a whole was finally on track towards becoming more equal and wealthier.

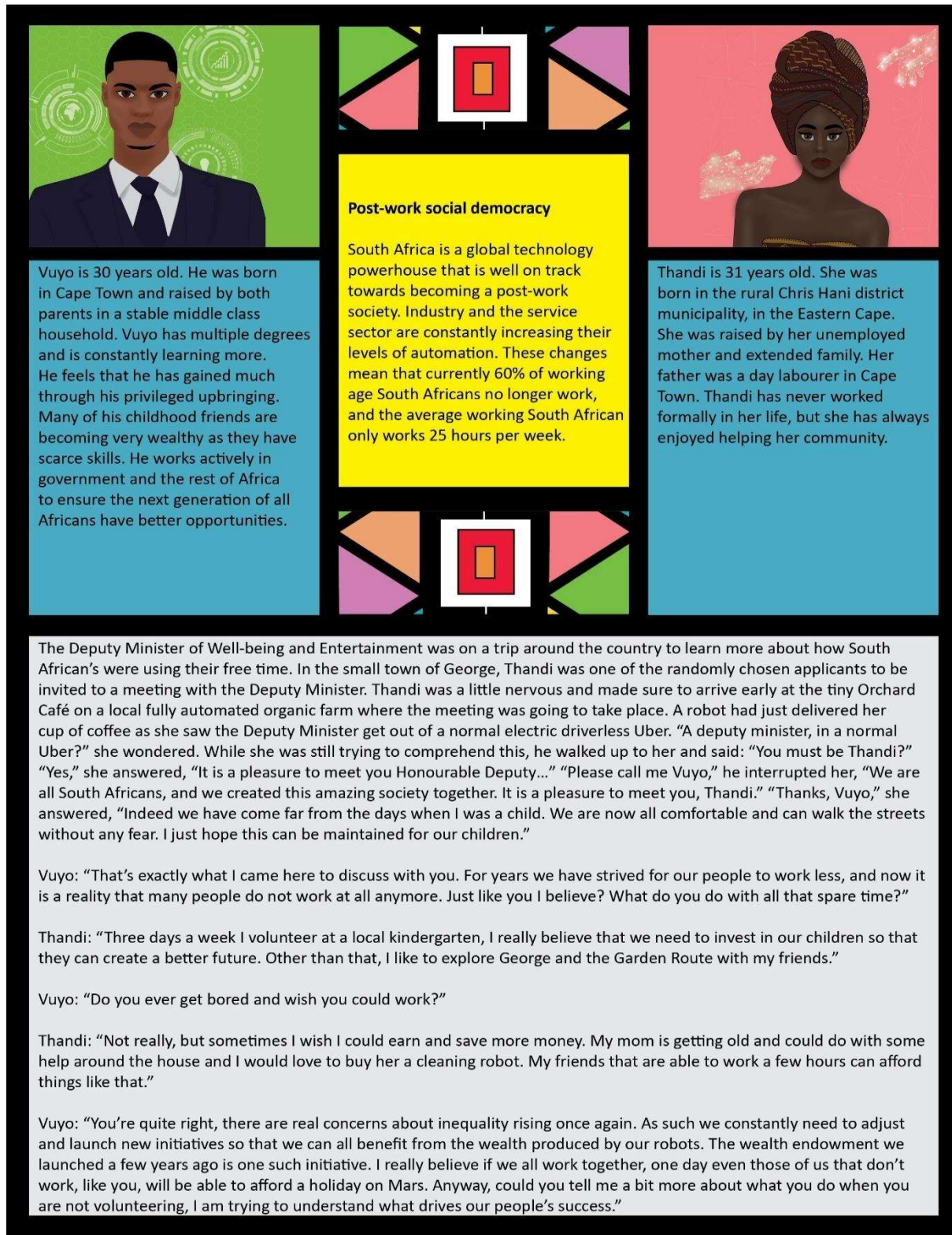


Fig. 7: Future persona narrative for the post-work social democracy scenario. The summary at the top was taken from the scenario fact sheet that was presented to each group. All other narratives were produced based on the workshop discussions. Own creation.

Arthur C. Clarke once stated that “the goal of the future is full unemployment” and today, South Africa appears close to achieving his vision. Currently over 60% of working age South Africans do not work, and the average working South African works 23 hours per week. Poverty has been eradicated, but while inequality is reducing, with a Gini coefficient of 0.49 it remains a tough problem.

Figure 7 shows the future persona narrative for the deregulation scenario.

Discussion

Through decoupling the PIU dimensions four plausible futures were created. As the CLA shows, these futures require changes to the current PIU metaphor – unemployment is the linchpin of the South African PIU problem. The future persona workshop deepened these scenarios and created rounded narratives for each future.

The reindustrialisation scenario is consistent with the current underlying metaphor of the PIU problem – individualism and greed in addition to unemployment are the linchpins of the PIU complex. Workshop participants were divided about how desirable this scenario is. Those that engaged with the scenario on a surface level found it very appealing. However, the group that developed the reindustrialisation future personas, found the discipline required in the scenario disturbing. They identified that there was some form of coercion needed to enforce it. A workshop participant said that “there is a strong state, but it does not have to be autocratic” and one accepts that “by sacrificing your potential freedom you [are] getting a lot socioeconomically.”

The post-work social democracy scenario on the other hand requires a fundamental shift to the underlying metaphor as the PIU complex is broken. This deep change of meaning comes with new problems. As each issue is addressed new challenges arise. The result is a system in constant transition. Despite this, many of the workshop participants were intrigued by this future and generally considered it favourably.

Due to the continued high levels of inequality, many workshop participants considered the almost business-as-usual and the deregulation scenarios to be the least preferred and somewhat fragile. Changes to the PIU metaphor for these scenarios are only minimal – in both scenarios absolute poverty has been resolved; while in the deregulation scenario inequality is rejected as a problem, in the almost business-as-usual scenario, unemployment and inequality are accepted as an unchangeable reality.

It also became evident that the participants who deeply engaged within the scenarios considered both the deregulation and the reindustrialisation scenarios to be used futures – as proposed by Inayatullah (2008). In the deregulation breakaway, a participant stated that “just like America today” this future comes with growing inequalities and social problems. For the reindustrialisation scenario participants implicitly noted that this future aimed to recreate the growth paths followed by industrialised nations in the twentieth century, including the negative environmental aspects of this.

Additionally, several themes were identified. The four most prominent are discussed below.

Industry and environmental sustainability

South Africa is the largest greenhouse gas (GHG) emitter in Africa. But as climate change is a global problem, local policies only have a limited impact. As such, while GHG emissions will be scenario dependant, climate change will be a reality for all the personas. This is reflected as all the middle-class personas are environmentally aware and they place importance on better policies and/or consumer behaviours.

The deregulation scenario is characterised by a relaxation of labour, environmental, and other regulations. This combination is attractive for growing the mineral extraction industries, high-yield agriculture, and services sectors. Industry is generally marked by a low level of automation as this is not required to be competitive with abundant cheap labour. Extensive mining and agriculture result in high water usage and pollution. Plastic litter will increase as existing restrictions on plastic use are lifted and public services – such as cleaning of public spaces – are rolled back. There will likely not be a significant increase in air pollution as manufacturing industry will not necessarily increase and trends in sustainable urban mobility will continue improving urban air quality.

The almost business-as-usual industry is based on an export focused primary sector, moderate beneficiation, and limited hi-tech development. Automation plays a significant role within the private sector where there is an incentive to minimise expensive unionised labour. Urban air quality will benefit from the overall trend in sustainable urban

mobility and increased public transport.

In the reindustrialisation scenario, the focus is on creating good jobs and South Africans accept that environmental sacrifices need to be made. These jobs are created through rural industrialisation, agri-processing, extensive mining, and resource extraction with high export tariffs on primary resources to promote beneficiation. The large manufacturing sector will lead to poor air quality in both rural and urban areas. A participant remarked: “[He] values what is scarce, [like] nature.”

Post-work social democracy has a circular economy with hi-tech services and manufacturing, sustainable energy production, safe and clean automated mining, and ultra-local organic automated farming. A participant remarked: “He would have a cup of organic, locally sourced coffee with oat cereal all completely produced without human labour.” This is the only scenario that addresses environmental sustainability holistically.

In all other scenarios there is a consumer push for environmental sustainability. It was noted that some security villages will “be trying to grow [their] own food [to] cut down dependency on the external environment,” but this can only be afforded by the middle-class and as such the impact is limited.

The various environmental effects per scenario are summarised in Table 2.

Table 2: Environmental sustainability in each scenario

	Deregulation	Almost business-as-usual	Reindustrialisation	Post-work social democracy
Climate change effects	Red	Red	Red	Red
GHG emissions	Yellow	Yellow	Red	Green
Local air quality - Urban	Green	Green	Red	Green
Local air quality - Rural	Yellow	Yellow	Red	Green
Water & plastic pollution	Red	Yellow	Yellow	Green

Red indicates deterioration in the scenario
 Orange is uncertain or not explicitly addressed in the scenario
 Green will be improved in the scenario

Social mobility and the middle-class

In all the scenarios the individuals that came from the poor background were better off than their parents, but there are major differences for these personas between scenarios.

For the personas from a middle-class background the differences in living standards were small in-between scenarios. However, in all but the post-work social democracy scenario, the personas from a middle-class background had limited free time and worked long hours to maintain their lifestyle. This is a continuation of the status quo for the South African middle-class.

The deregulation scenario was marked by low social mobility. The middle-class is relatively stable as work is abundant. However, the relaxed labour laws result in low job security which affects their wellbeing. One participant remarked: “She is worried [that] she won’t get her next gig job.” There was a clear view that this scenario offers no social mobility beyond getting out of poverty. A participant stated: “She’s thirty now and there’s not a clear path of getting out of this kind of life.” The low wages make accumulation of wealth difficult, this combined with a smaller public sector and privatised education limit intergenerational social mobility.

Almost business-as-usual has the lowest social mobility of all scenarios. The strong labour laws and unionisation ensure workers are protected and well paid. A participant said: “She’s grateful for government [and] organised labour, because [they were] able to keep a regulated labour system in place that protects South Africans.” But most people who do not have specialised skills depend on grants if they become unemployed. This is a continuation of current trends.

In the reindustrialisation scenario the middle-class is very stable, work is abundant, and jobs are high paying. Overall, the gap between the elite and middle-class has shrunk. This stability creates intergenerational social

mobility and only the few long-term unemployed are at risk of falling into relative poverty.

In the post-work social democracy scenario, a substantial proportion of the population will have the UBI as their only means of income. Those with capital or specialised skills gain additional income, thereby increasing the gap between the elite and the majority. However, this growing inequality is actively addressed through measures like the wealth endowment and a growing UBI. These measures will enable increased wealth accumulation. Further, less constrained education – both time and financial – will allow more people to develop skills necessary to increase their income. Together these factors indicate an increasing intergenerational social mobility.

Crime and safety

All groups touched on the future of interpersonal crime and personal safety in 2045. This was primarily a concern in the scenarios with high inequality. As one participant said, “crime must still be a very harsh reality in this scenario.” The scenarios with low inequality appeared to have addressed the crime problem. Workshop participants made statements like, “she mostly walks where she wants to be, [...] we hope by that time there is a solution for crime.”

Urbanisation

The personas from poor rural backgrounds had either moved to a metro or were wanting to do so, indicating a theme of urbanisation. However, as noted by a workshop participant, in the post-work social democracy scenario there will be “the reverse trend of ruralisation because most people won’t really be seeking employment which has been a main driver of migration from rural areas to urban areas.”

The reindustrialisation scenario will create work closer to where people live, thereby transforming previously poor neighbourhoods in urban areas. It will also result in the growth of smaller towns. A participant said: “She lives in a [rural] agri-cluster.”

The high inequality scenarios will deepen “the colonial and apartheid legacy of sprawling, fragmented, and racially divided cities” (Turok, 2011). For the deregulation scenario a participant stated that there will be “self-sufficient [...] security village[s]” which will be a continuation of the trend for wealthier South Africans to separate themselves from the poor.

Conclusion, Limitations, and Further Work

This paper explores plausible, non-collapse South African socioeconomic futures that disrupt the underlying PIU metaphor through the decoupling of the PIU dimensions. Thereby the notion that unemployment must be addressed to resolve the PIU problem is successfully challenged.

Three of the scenarios decouple the PIU complex by addressing poverty without addressing inequality or achieving full employment. The reindustrialisation scenario doesn’t decouple the PIU problem. The current prevalent metaphor makes this combination the ideal future for many South Africans (Robinson, 2020), but through deeper engagement this study found the scenario to be less ideal as this future requires environmental sacrifices and soft coercion to address the PIU crisis. This dark underside, coupled with the general dislike of the scenarios where inequality remains high, highlighted the need for fundamentally new narratives to broaden the South African public discourse.

The future persona workshop allowed most participants to naturally relate to each persona’s worldview while challenging their own underlying metaphors, thereby deepening the scenarios whilst testing the base scenarios that were developed by the authors. The details added to the scenarios went beyond developing better narratives. The free flow of ideas based on the organic nature of the future persona method enabled the emergence of themes without prompting by the authors – this is consistent with the Manoa School findings that day-in-the-life-of-a-character type scenarios are the easiest stories for most people to engage in (Schultz, 2015). The persona fact sheet and the analysis of the workshop transcripts provided a good foundation to conduct a CLA.

Emerging themes such as used futures, preferred futures, disowned futures, and what it means to create a successful society from different individual perspectives could not be addressed sufficiently within the scope of this

study. These themes can be investigated by using the results from this study to develop integrated scenarios as proposed by Inayatullah (2008). In addition to this, the application of the produced narratives as a tool to challenge existing worldviews and metaphors in broader South African society could be explored – as suggested by Milojević and Inayatullah (2015). Thereafter the scenarios, narratives, and personas can be used to drive multidisciplinary engagement and develop strategies to achieve a preferred integrated future.

Finally, this study was limited to PIU in South Africa. Terreblanche (2014) historically described South Africa as a microcosm with great similarities in terms of inequality, wealth distribution and opportunities when compared to the global macrocosm. This picture still holds true today where PIU are also global problems. Unemployment is at a risk of increasing in coming years because of the 4IR (Manyika, et al.; Frey & Osborne, 2017). Covid-19 has set the world back in its fight against poverty (United Nations, 2021), and global inequality has risen over the past decade. If current trends continue until 2050, the top 0.1% will have more wealth than the entire global middle class (Alvaredo et al., 2017). As such this study could also be used as a template for wider global PIU futures research.

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Notes

- 1- Poor is defined as living below the upper-bound poverty line, of which the transient poor have “above-average chances of making it out of poverty”. The vulnerable middle-class is defined as those living above the upper-bound poverty line, with an above-average chance of falling into the poor social class. The elite are defined as being two standard deviations above the mean per capita household expenditure.
- 2- Minimum wage in year zero is based on R20.76 per hour (Department of Employment and Labour, 2020) for the maximum work week of 45 hours (Parliament of the Republic of South Africa, 1997) and 21 workdays per month. Starting UBI in year one is R810 per month, the lower-bound poverty line in 2019 (Statistics South Africa, 2019c). Maximum weekly workhours are decreased by one hour per year, the minimum monthly wage is increased by CPI+5% and the UBI by CPI+12.5%.

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