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Towards a Comprehensive Social Protection System for a Just Transition in South Africa

Towards a Comprehensive Social Protection System for a Just Transition in South Africa

Just Transition Consortium for Research on Employment and Work

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The Presidential Climate Commission (PCC) is a multi-stakeholder body established by the President of South Africa to advise on the country's climate change response and support a just transition to a low-carbon climate-resilient economy and society. The PCC facilitates dialogue between social partners on these issues—defining the type of economy and society we want to achieve, and detailed pathways for how to get there.

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Acronyms

BEEI	Basic Education and Employment Initiative
BEP	Basic Education Programme
BFP	Basic Food Programme
BIG	Basic Income Grant
COSATU	Congress of South African Trade Unions
CSP	Comprehensive Social Protection
CWP	Community Works Programme
DPWI	Department of Public Works and Infrastructure
DSD	Department of Social Development
ECD	Early Childhood Development
EPR	Employment-to-Population Ratio
EPWP	Expanded Public Works Programme
FPE	Free Primary Education
FPL	Food Poverty Line
GDP	Gross Domestic Product
ILO	International Labour Organization
IMF	International Monetary Fund
JTIS	Just Transition Income Support Grant
LBPL	Lower Bound Poverty Line
LMIP	Labour Market Information Project
MDG	Millennium Development Goals
MTEF	Medium-Term Expenditure Framework
NGO	Non-Governmental Organisation
NHI	National Health Insurance
NSSF	National Social Security Fund
NYS	National Youth Service
PCC	Presidential Climate Commission
PEP	Public Employment Programme
PES	Public Employment Scheme
PPP	Purchasing Power Parity
QLFS	Quarterly Labour Force Survey
SARS	South African Revenue Service
SASSA	South African Social Security Agency

SDG	Sustainable Development Goals
SEF	Social Employment Fund
SOE	State-owned enterprise
SP	Social Protection
SRD	Social Relief of Distress
UBIC	Universal Basic Income Coalition
UBPL	Upper Bound Poverty Line
UCG	Universal Child Grant
UIF	Unemployment Insurance Fund
UN	United Nations
UUG	Universal Unemployment Grant
VAT	Value Added Tax
WB	World Bank

Executive Summary

Despite South Africa's carbon-intensive economy, research suggests that decarbonisation could result in net employment gains, provided the economy continues to grow (IASS, IET and CSIR, 2022; Merven et al., 2021; Rogan et al., forthcoming). While these projections are encouraging, the early distributional effects of emission reductions are likely to be unequal, with Black African workers, women and youth disproportionately at risk of job displacement during the initial years of the transition (Rogan et al., forthcoming). Social protection is one policy instrument that can help to mitigate the adverse impacts of both climate-related shocks, and decarbonisation policies. The Framework for a Just Transition in South Africa proposes sector-specific and regionally targeted social protection measures along the coal and automotive value chains, as well as agriculture and tourism (PCC, 2022). While it is critical to ensure that workers directly displaced by decarbonisation policies are adequately compensated and supported through tailored social protection measures (see Bhorat et al., 2025), this paper argues that a targeted sectoral approach will be insufficient to ensure a just transition to a low-carbon economy.

This paper presents a conceptual framework and costed policy proposals for a comprehensive social protection system in support of a just transition. The conceptual framework draws on analysis of policy gaps in South Africa's social protection system, international approaches to social protection for a just transition, semi-structured interviews with policy makers and practitioners, and case studies of particular sectors. The costing exercise examines three policy measures: a targeted Just Transition Income Support Grant (JTIS) for workers directly displaced by decarbonisation policies; a Universal Unemployment Grant (UUG) for unemployed adults between the ages of 18 and 59; and climate-responsive public employment programmes (PEPs). For each, we estimate the fiscal implications under minimalist, moderate and maximalist scenarios. The objective is not to present definitive policy prescriptions, but rather to explore potential pathways towards a comprehensive social protection system that can guide planning, phasing, and financing strategies. The paper concludes with a reflection on financing options. In addition to new sources of tax financing – e.g. taxes on high-income and high-wealth individuals, increased corporate taxes, taxes on digital financial services, climate-specific taxes – the paper argues for the need to strengthen the redistributed character of social insurance through the establishment of a national social security fund (NSSF).

Costed policy scenarios

- *Policy consideration 1: Just Transition Income Support Grant (JTIS)*, set at the level of the national minimum wage, for workers directly displaced by decarbonisation policies. This proposal has the smallest fiscal impact, ranging from 0.07% to 0.35% of gross domestic product (GDP), between 2025 and 2050. However, the proposed programme has very limited reach. Based on the simulations by Rogan et al. (forthcoming), the model projects that cumulative job losses begin at 68 479 in the first year and increase steadily, peaking at approximately 632 000 by the end of the forecast horizon. These projections overlook the large number of casual, informal and unpaid workers whose livelihoods are equally at risk from climate change and decarbonisation policies. Ultimately, the JTIS would be difficult to operationalise given the country's high levels of poverty, inequality and unemployment – and government would inevitably be pressured to expand its scope.
- *Policy consideration 2: Universal Unemployment Grant (UUG)*. This proposal has a fiscal impact ranging from 3.3% of GDP to 2% of GDP in 2025, depending on whether it is set at the upper bound or lower bound poverty line. The advantage of this approach is that it would allow for comprehensive coverage of unemployed adults of working age, including casual, informal and unpaid workers. If the unemployment rate remains fixed, a programme based on the broad unemployment rate would cover 11.7 million in the first year, increasing to 14.3 million in the final year. Given that the unemployment rate is expected to decline, provided that economic growth increases, the UUG could adopt a phased approach, starting at the lower bound poverty line (LBPL) and expanding to the upper bound poverty line (UBPL).
- *Policy consideration 3: Public Employment Programme (PEP)*, set at the level of the national minimum wage, with a strong emphasis on projects that enhance climate resilience and social infrastructure. This proposal has a fiscal impact of between 0.9% and 2.1% of GDP, depending on coverage levels. Coverage ranges between 1 and 2.4 million work and livelihood opportunities. The advantage of PEPs is that they can contribute to climate resilience through improved infrastructure, services and livelihood opportunities – provided that they offer dignified and meaningful work, are embedded within skills formation systems and linked to employment opportunities elsewhere. The relative cost is expected to decline as GDP grows.

Introduction

The global shift towards decarbonisation brings both opportunities and challenges for carbon-intensive economies such as South Africa's. Under the Paris Agreement, South Africa committed to reduce its greenhouse gas emissions to between 350 and 420 MtCO₂-eq by 2030 (RSA, 2021). Despite its heavy reliance on coal, research suggests that decarbonisation could result in net employment gains, provided the economy continues to grow (IASS, IET and CSIR, 2022; Merven et al., 2021; Rogan et al., forthcoming). While these projections are encouraging, microsimulation analysis suggests that while overall employment is expected to increase, the early distributional effects of emission reductions are likely to be unequal, with Black African workers, women and youth disproportionately at risk of job displacement during the initial years of the transition (Rogan et al., forthcoming). As the Framework for a Just Transition in South Africa highlights, the shift to a low-carbon economy must subscribe to the principles of distributive, procedural and restorative justice.

Social protection is one policy instrument that can help to mitigate the adverse impacts of both climate-related shocks and decarbonisation policies (ILO, 2023). The Framework for a Just Transition in South Africa proposes sector-specific and regionally targeted social protection measures along the coal and automotive value chains, as well as agriculture and tourism (PCC, 2022). While it is critical to ensure that workers directly displaced by decarbonisation policies are adequately compensated and supported through tailored social protection measures (see Bhorat et al., 2025), limiting social protection responses to a core group of workers poses several concerns. First, it assumes that the impacts of climate shocks and decarbonisation policies will remain geographically contained, despite growing evidence that nearly all provinces will be affected, albeit unevenly. Second, it overlooks the large number of casual, informal and unpaid workers whose livelihoods are equally at risk. Third, it risks creating a false hierarchy of deservingness, prioritising those workers who were directly displaced by decarbonisation policies while ignoring the millions of unemployed workers who are already excluded from the labour market. Given South Africa's structurally high levels of poverty, inequality and unemployment, a targeted sectoral approach will be insufficient to ensure a just transition to a low-carbon economy. Instead, the transition to a low-carbon economy provides an important opportunity to rethink the terms of redistribution and the design of social protection systems.

This paper presents a conceptual framework and costed plan for a comprehensive social protection system in support of a just transition. It draws on a comparative analysis of policy documents; semi-structured interviews with key informants including policy makers, industry representatives, trade unionists and workers in the solar photovoltaic sector; and a scenario-based costing model that estimates the fiscal implications of selected social protection interventions. The costing exercise examines three measures: a) targeted support for workers directly displaced by decarbonisation policies, b) universal income support for the unemployed and c) climate-responsive public employment programmes. For each measure, we estimate the fiscal implications under minimalist, moderate and maximalist scenarios. This paper compliments ongoing research by the Presidential Climate Commission (PCC) on tailored programmes for displaced workers in vulnerable sectors (see Bhorat et al., 2025). The objective is not to present definitive policy prescriptions, but rather to explore potential pathways towards comprehensive social protection that can guide planning, phasing and financing strategies.

The first section examines the role of social protection in enabling a just transition towards a low-carbon economy. Using a feminist political economy lens, it underscores the importance of measures that support casual, informal and unpaid care workers. The second section provides a critical assessment of South Africa's existing social protection system. The third section explores three avenues through which coverage could be extended to able-bodied adults of working age and proposes concrete policy recommendations towards a just transition. The fourth section models the cost of the proposed recommendations, weighing both the benefits and limitations. This study concludes with a discussion of the potential financing options. It argues that for social protection to be truly transformative, policy responses must be designed in function of need rather than constrained by the fiscal space available. While South Africa has an expansive social protection system that can serve as the foundation for climate-responsive programmes, its expansion will require structural increases in revenue. This could be achieved by curbing illicit financial flows, introducing ringfenced social protection taxes, and cross-subsidising social grants with social insurance. If, as Rogan et al. (forthcoming) suggest, the unemployment gradually declines, the burden on tax-financed social protection will ease over time – provided that new jobs created meet the standards for decent work.

The Function of Social Protection

Social protection serves several, interrelated functions. It can contribute to poverty reduction by shielding households from both idiosyncratic shocks and contingencies along the life cycle; it can stabilise consumption and bolster aggregate demand, stimulating domestic economic activity during economic downturns; and it can foster greater social cohesion and trust in state institutions, particularly during periods of economic and political transformation (Costella et al., 2023). When designing social protection systems, governments must determine which groups to cover, which risks to prioritise and what level of protection to provide. The International Labour Organization's (ILO) Recommendation 202 on National Social Protection Floors sets out minimum guarantees regardless of employment status (ILO, 2012). These include access to essential healthcare; income security for children; income protection for working-age adults during illness, disability, maternity or unemployment; and income security for older persons. Recommendation 202 (R202) emphasises that social protection floors must ensure universal coverage at a level sufficient to guarantee a decent standard of living (ILO, 2012). Importantly, it does not preclude higher levels of protection through contributory, employment-based schemes per the terms of ILO Convention 102 (C120). ILO C102 further specifies that all formal sector workers should have access to medical care; short-term benefits in times of sickness, unemployment, employment injury and maternity; and long-term benefits such as invalidity, survivor and old age pensions (ILO, 1952).

As Mkandawire (2001) notes, the design of social protection systems is never purely technical. Rather, it reflects political bargains between competing social forces over the terms of redistribution. In his seminal work, *The Three Worlds of Welfare Capitalism*, Esping-Anderson (1990) distinguishes between three welfare regimes, each shaped by their own set of ideological beliefs about the nature of vulnerabilities and the redistributive role of the state. Social democratic regimes view vulnerabilities as the outcome of structural economic failures and position the state as a key agent of redistribution. They typically provide generous benefits, promote high levels of decommodification – reducing reliance on the family and market – and exhibit low levels of social stratification. Corporatist or conservative regimes emphasise the role of the family in welfare provision. Benefits are generally narrow in scope and quality, tied to formal employment and they reproduce existing social hierarchies. Liberal regimes place primary responsibility on the market. They offer minimal support, resulting in the lowest levels of decommodification and highest levels of social stratification (Esping-Andersen, 1990).

While influential, Esping-Andersen's typology does not account for the racialised legacies of colonial capitalism that have shaped welfare regimes in the global South (Wood and Gough, 2006). To address this gap, Seekings (2008) proposes an alternative typology for the African continent, consisting of four welfare regimes. Agrarian regimes, found mainly in low-income and less industrialised countries, prioritise land redistribution over income support as the main tool for addressing poverty. Clientelist regimes, common in low- and middle-income countries, provide highly targeted and limited income support. However, weak state capacity and poor democratic accountability means that access is largely mediated through patronage networks. Productivist regimes, typically seen in middle-income countries, link income support to employment. This approach privileges a core group of formal sector workers, while excluding those in informal or precarious work. Redistributive regimes, more likely to emerge in middle-income countries with stronger democratic institutions, offer universal income support that is independent of patronage relations or employment status. For Seekings (2008), South Africa is located somewhere in between the productivist and redistributive regimes.

Feminist scholars have been particularly critical of productivist regimes for privileging formal, full-time employment, while disregarding feminised casual, informal and unpaid reproductive labour. As Bhattacharya (2017) observes, women have long borne the biological and social responsibility for activities related to the reproduction of life. Tasks such as housework, child rearing and elder care are deeply gendered and racialised. Of course, there is nothing inherently female about reproductive labour. After all, the gender division of labour is a social construct, maintained through a combination of coercion and consent (Federici, 2004; Vogel, 1983). And precisely because it is a social construct, the meanings attached to labour are not universally understood or experienced (Oyěwùmí, 1997). Nevertheless, women remain disproportionately concentrated in the most precarious and undervalued forms of work, leaving them effectively excluded from productivist welfare regimes. Only a redistributive approach, anchored in a comprehensive social protection system, can guarantee universal and adequate coverage for precarious workers (Chen, 2012).

As the next section argues, the transition to a low-carbon economy offers an opportunity to rethink the terms of redistribution and the design of social protection systems. However, comprehensive social protection alone is not sufficient to guarantee the decommodification of life. It must be complemented by broader social policies that ensure universal and quality access to essential services such as water, electricity, sanitation, transport, healthcare, childcare

and education (Lombardozzi and Pitts, 2020). Yet, across much of the African continent, austerity regimes have reduced social policy to a patchwork of residual social grants, whose scope and scale are narrowly constrained by the fiscal space available. Even in South Africa, where almost two thirds of non-interest spending is allocated to the social wage, budgets for essential public services have steadily eroded. The expansion of social grants without parallel investment in basic public services has reinforced the deeply unequal and segregated systems of public provisioning, undermining the transformative goals of social development (Adesina, 2020). As Adesina (2020) stresses, social policies can drive structural transformation, promote economic development, strengthen social inclusion and contribute to nation-building. But to do so, social policies must extend beyond minimalist social grants and embrace a more ambitious agenda – one that requires expanding the fiscal space for social policy. As Fine (2014) argues, this involves strengthening state capacity to regulate (multinational) capital, mobilise domestic revenue and channel resources into robust and equitable public services.

The Role of Social Protection in a Just Transition

Social protection is one important policy lever for a just transition (ILO, 2023). However, most existing social protection systems are not designed to respond to the effects of climate change – a function usually ascribed to disaster management units – or climate policies. For Malerba (2021), climate-sensitive social protection systems need to be able to anticipate extreme weather events, scale up emergency support and provide longer term social protection benefits. This can be achieved by integrating climate forecasting into existing social protection schemes; offering short-term income or in-kind support in response to climate emergencies, such as droughts, fires and floods; and expanding public employment programmes. Public employment programmes can both provide a longer term source of income support and strengthen adaptive infrastructures, for example, water harvesting systems, soil conservation and reforestation initiatives, and flood resistant infrastructure (World Bank, 2022).

South Africa has some of the foundations of a climate-sensitive social protection system. For instance, the Social Relief of Distress (SRD) grant was originally designed to provide emergency support for up to three months for households facing idiosyncratic shocks, including climate emergencies (RSA, 2004). And as the Covid-19 pandemic highlighted, the SRD can be scaled up relatively quickly, even with significant implementation challenges (Gronbach et al., 2022). Similarly, the Expanded Public Works Programme (EPWP) and Presidential

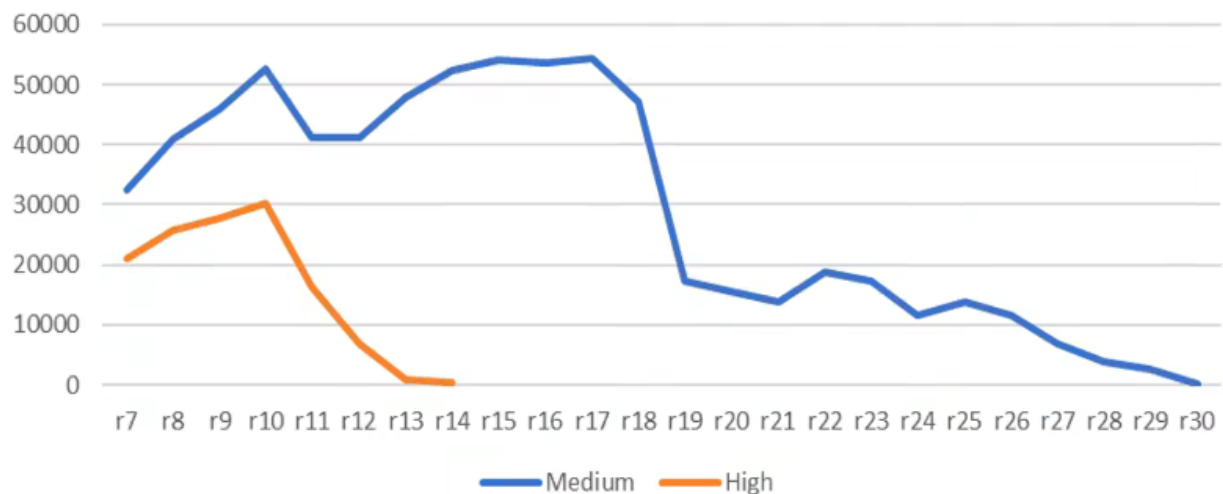
Employment Stimulus (PES) have the potential to support adaptation efforts. Not only do they provide longer term sources of income, but they can also contribute to developing climate-resilient infrastructure and offer workers opportunities to develop skills relevant to emerging sectors, such as renewable energies and environmental management (Ding and Hirvilammi, 2024; Jones et al., 2010). However, for existing social protection programmes to effectively respond to climate change, it will be important to strengthen the capacity of implementing agencies to anticipate climate events and coordinate with other relevant sectors, such as disaster management.

Social protection can also play an important role in mitigating the negative socio-economic impacts of climate and decarbonisation policies. These impacts may include job losses or declining incomes in carbon-intensive industries; reduced access to natural resources and land, due to renewable energy expansion or other mitigation measures; and rising costs of essential goods, such as food, energy, housing and transport (ILO, 2023). Projections of the employment effects of decarbonisation in South Africa point to net employment gains (IASS, IET and CSIR, 2022; Merven et al., 2021; Rogan et al., forthcoming). Using a top-down microsimulation – based on a popular combined energy CGE model – Rogan et al. (forthcoming) project that employment could expand by as much as 40% to 120% over the next 25 years, assuming that the economy grows year-on-year. This would outpace population growth and dramatically lower unemployment.

However, as Figure 1 illustrates, in the early years of the transition, between 20 000 and 55 000 people are expected to lose their jobs, depending on growth scenarios. The blue line denotes unemployment transitions under a medium growth scenario of 1.5% GDP growth and the orange line represents a high growth scenario of 3% GDP growth. The employment growth is so strong under the high growth assumption that the microsimulation stops allocating workers to unemployment after approximately five years. Displacement is likely to be concentrated in the agricultural and mining sectors (Figure 2), where workers' skill profiles make redeployment difficult. Similarly, the skills profile of Black African workers, women and youth put them at greater risk of labour displacement (Rogan et al., forthcoming). This is especially concerning because these demographic groups already face entrenched socio-economic exclusion. The findings by Rogan et al. (forthcoming) are broadly consistent with earlier projections, though somewhat more optimistic. For instance, previous studies found that a green transition could threaten as many as 100 000 jobs in the coal value chain. When combined with broader

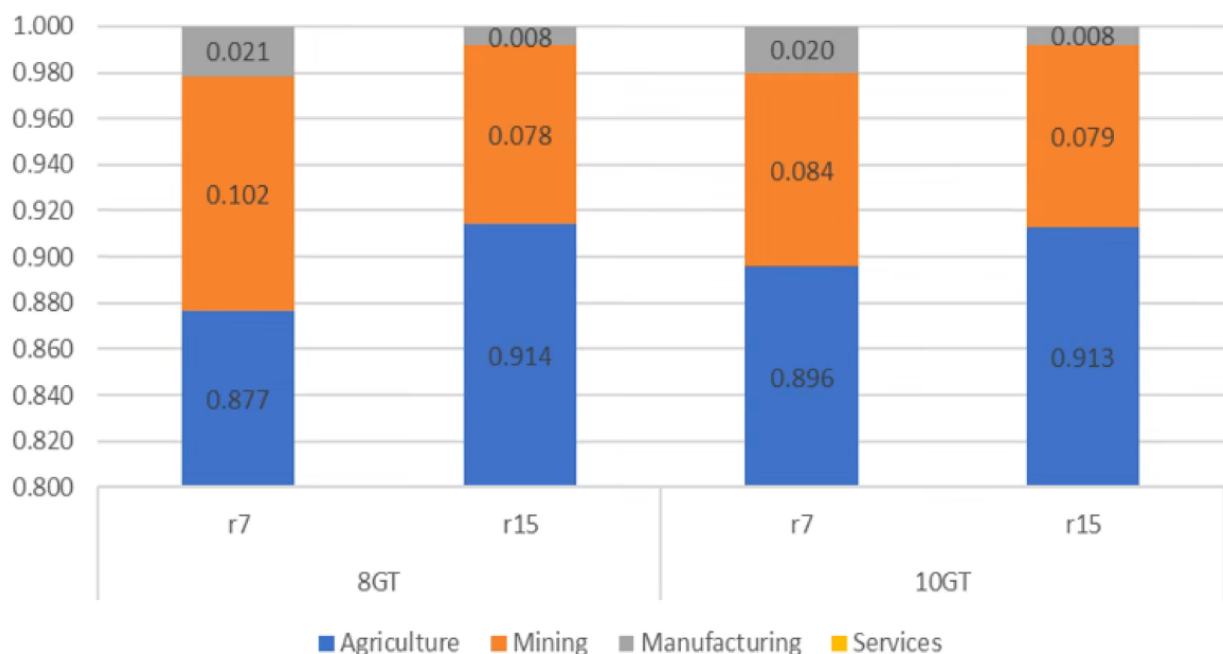
disruptions as a result of climate change, such job losses could exacerbate poverty and unemployment (Makgetla et al., 2019; Merven et al., 2023; NBI, 2024).

Figure 1: Total modelled number of transitions from employment to unemployment 2025–2050 under a 9 GT emissions cap with medium and high growth scenarios



Source: Rogan et al. (forthcoming)

Figure 2: Comparison of modelled sectoral shares of transition from employment to unemployment in 2025 and 2033, under medium growth



Source: Rogan et al. (Forthcoming)

The Framework for a Just Transition in South Africa calls for the introduction of sector-specific and regionally targeted social protection measures for workers and communities affected by climate shocks or displaced by the transition to a low-carbon economy. It highlights four sectors as particularly vulnerable and in need of targeted intervention: the coal value chain, the automotive value chain, agriculture and tourism (PCC, 2022). Bhorat et al. (2025) propose a targeted social protection response for displaced coal workers, which includes temporary income support, mobility assistance, early retirement options and access to education and training opportunities. The package is differentiated by age and skill to meet workers' differing needs. However, it applies only to the coal value chain and excludes casual, informal and unpaid care workers, who may be directly or indirectly affected. With the expanded unemployment rate hovering at 42.9% (StatsSA, 2025), South Africa's unemployment problem is chronic and structural. While a targeted approach that responds to the specific needs of workers directly affected by decarbonisation policies is needed, a narrow focus on formal sector workers alone is insufficient to ensure a just transition.

In designing a comprehensive social protection system, it is important to consider how gender relations shape vulnerabilities to climate change and decarbonisation policies. Women tend to be concentrated in precarious and informal activities and their incomes are generally lower than those of men. Consequently, they have fewer resources to fall back on during moments of crisis. Furthermore, they shoulder a disproportionate burden of unpaid care work, such as fetching water, collecting firewood and caring for dependents. Climate events such as drought can intensify the burden of unpaid care work by, for instance, forcing women to walk longer distances in order to access water. Finally, during extreme weather events, displaced women often face a heightened risk of gender-based violence and exploitation (van Daalen et al., 2020). Importantly, not all women are affected equally. Vulnerability to climate-related shocks is compounded by race, class, geography, age and citizenship, among other factors (Cerise et al., 2024). Therefore, it is critical to ensure that the policies adopted to respond to climate change and decarbonisation reduce rather than exacerbate gender inequalities (Mokoena, 2025). A gender-sensitive social protection strategy must provide universal, comprehensive and adequate income support (ILO, 2023). And it must ensure that the expansion of social protection is paired with greater investment in essential public services, including healthcare and education, water and sanitation, housing and transportation, and public safety. In the following section, we provide an overview of South Africa's social protection system and explore the key challenges to achieving a comprehensive social protection system.

South Africa's Social Protection System: An Overview

Social Insurance

South Africa's social protection system rests on two main pillars: contributory social insurance and tax-financed social assistance. The social insurance system includes both public and private funds. The Unemployment Insurance Fund (UIF) is a mandatory public insurance scheme that provides short-term relief to workers who are unable to work due to unemployment, illness, childbirth or death (for survivors). The scheme is financed through equal contribution from employers and employees – each paying 1% of the worker's monthly income – and administered by the Department of Labour, in conjunction with the South African Revenue Service (SARS). To qualify for UIF benefits, workers must have contributed to the fund for at least three months, have no other source of income and, in the case of unemployment benefits, must be registered as a work seeker (UIF, 2025). Despite its mandatory nature, just over a quarter of the employed workforce contribute to the scheme on a regular basis (StatsSA, 2025). Low levels of coverage are the result of high levels of churning in the labour market, the exclusion of self-employed and own-account workers, weak enforcement by the Department of Employment and Labour, widespread employer evasion and declining public trust in the system (van den Heever, 2022).

The UIF only offers short-term benefits and does not cover long-term risks. To access long-term protection, workers must rely on private retirement and insurance funds. While the schemes are voluntary, contributions may be a mandatory condition of employment, as is the case of the Government Employees Pension Fund. Like the UIF, these schemes are jointly financed through the contributions of workers and employers, though defined contribution levels and the quality of benefits tend to be much higher. According to the World Bank (2019), over half of South Africans have some kind of private retirement plan, which is significantly higher than the share of people enrolled in the UIF. Yet, savings are extremely low, averaging R50,000 (Stewart, 2020). This poses a challenge to ensuring adequate social protection coverage during periods of disability or old age. Paradoxically, private pension funds manage assets equivalent to almost 100% of South Africa's GDP – among the highest rates in the world (Stewart, 2020). The stark contrast between the high aggregate assets and meagre average savings reflects South Africa's historically unequal labour market.

In 2021, the Department of Social Development (DSD) released the Green Paper on Comprehensive Social Security and Retirement (Department of Social Development, 2021a). The Green Paper proposed wide-ranging reforms, including a national social security fund (NSSF). The NSSF was envisioned as a public, mandatory, contributory social insurance scheme that would offer both short-term benefits, such as unemployment insurance, and long-term benefits, including retirement, disability and survivors' pensions (DSD, 2021b). Crucially, the NSSF aimed to cover all workers – formal, informal and self-employed – subject to minimum income thresholds. It would be financed through mandatory contributions by workers and employers, ranging between 8% and 12% of monthly income. Self-employed workers earning above R20,000 would be expected to pay the full contribution. Contributions would be capped at an annual income of R267,000, and middle- and high-income earners could opt into voluntary private schemes. According to the proposal, the fund would be partially subsidised by the National Treasury to support lower income contributors.

Supporters of the NSSF argued that it would address South Africa's highly fragmented social security system, improve risk pooling, close coverage gaps and deliver better benefits. Although more than half of South Africans contribute to some kind of pension fund, the average replacement rate – the share of pre-retirement income replaced by pensions – ranges between 16% and 24% (DSD, 2021b; OECD, 2023). The NSSF not only aimed to achieve comprehensive coverage but also to increase the replacement rate to 40% of career average earnings after 30 years of contributions (DSD, 2021b). However, the Green Paper was swiftly withdrawn following its release. Critics raised concerns about the compulsory nature of the fund, the potential burden on low-income earners and the self-employed, the financial risks associated with cross-subsidisation, the erosion of private sector competition and the state's administrative capacity (Anderson, 2021; Business Tech, 2021). The DSD (2021a) claimed that the withdrawal was to allow for further technical clarification. However, no revised version was ever tabled.

Social Assistance and a Basic Income Guarantee

South Africa has one of the most expansive social assistance systems in the global South. Administered by the South African Social Security Agency (SASSA), it provides eight permanent grants for vulnerable individuals and households. These include the Child Support Grant for caregivers of children under the age of 18, the Old Age Grant for individuals aged 60 and above, the Disability Grant for people with mental and physical disabilities, the Foster

Child Grant for court-ordered foster caregivers, the Care Dependency Grant for caregivers of children with severe disabilities, the Grant-in-Aid for grant recipients who require full-time care, and the War Veterans Grant for veterans who served in World War II or the Korean War. Most grants are means tested, with income and asset thresholds varying by grant type. As of 2024, these eight grants covered approximately 19 million recipients, with the Child Support Grant accounting for the largest share, followed by the Old Age and Disability Grants (SASSA, 2024). Values for permanent grants range from R370 to R2,320 (Table 1).

Table 1: Social assistance coverage by grant in 2025

Grant	Coverage	Amount
Old age	4 041 763	R2,320-40
Disability	1 056 270	R2,320
Grant-in-aid	401 762	R560
Care dependency	165 764	R2,320
Foster child	253 256	R1,250
Child support	13 218 701	R560 (top up R280)
War veterans	9	R2,340
Social relief of distress	9 000 000 (approx.)	R370

Source: SASSA (2025)

In addition, SASSA administers the SRD grant, originally designed to provide temporary cash or in-kind support to individuals facing a sudden loss of income due to idiosyncratic shocks (RSA, 2004). In 2024, the SRD was scaled up to include regular income support to unemployed adults between the ages of 18 and 59 – a group historically excluded from social assistance (Fouksman and Dawson, 2023). Like other grants, the SRD is means tested, with the threshold set at R624 per month, which falls below the food poverty line. The grant currently provides a monthly stipend of R370 to about 8.5 million people, equivalent to approximately 75% of the unemployed under the expanded definition (SASSA, 2024; StatsSA, 2025). Despite repeated government commitments to transform the SRD into a permanent Basic Income Grant (BIG), this has yet to be realised (SABC, 2025). Instead, the grant continues to be renewed on an annual basis, offering only temporary short-term relief and leaving a significant gap in the country's social protection system. Earlier this year, the South African High Court ruled that the SRD violated the constitutional right to adequate social security. The judgement highlighted two central issues: the stringent eligibility criteria, which exclude about a quarter of the

unemployed; and the low value of the grant, which means that recipients are unable to meet their basic needs (RSA, 2025). Although the value of the grant did increase, the ability of the government to transform the SRD into a permanent, universal and adequate BIG has been constrained by the fiscal space available.

Despite its limitations, South Africa's social grant system has proven effective in reducing extreme poverty, narrowing the poverty gap and mitigating intergenerational poverty – even if it has not eradicated poverty altogether (Bhorat et al., 2016). Furthermore, research consistently shows that social grants have become a cornerstone of households' livelihood strategies, with grant recipients supporting entire households (Mosoetsa, 2011; Scully and Webster, 2019). However, the absence of a permanent basic income guarantee constitutes an important limitation. The current social grants system assumes that able-bodied adults of working age can sustain themselves through their own labour. Yet, with persistently high unemployment rates, this assumption no longer holds – if it ever did to begin with. While most unemployed South Africans would prefer a proper job over receiving a basic income guarantee (Fouksman and Dawson, 2023), full employment is not a realistic proposition in the short to medium term. A BIG would ensure universal coverage for the unemployed, filling the most significant gap in South Africa's social protection system; simplify administrative procedures and reduce errors of exclusion; curb the stigma associated with means-tested transfers; and strengthen social solidarity and cohesion (Jehoma and Guarnieri, 2016).

Interestingly, the BIG has been less politically contentious than the NSSF described above. On the one hand, proposals for a BIG have been on the policy agenda since the late 1990s and are the cornerstone of civil society mobilisation (Guthrie, 2002; Vlok, 1998). On the other hand, while a BIG would require harnessing new sources of revenue through taxation, it does not pose a direct challenge to the accumulation strategies of powerful investment firms and the asset managers who manage private pension funds. Nonetheless, pockets of resistance to a BIG remain for several reasons. The first is a lingering fear that a BIG will discourage labour market participation and foster dependency on the state. This view has been widely contested. After all, the unemployed have greater ambitions for their lives than surviving on a social grant (Fouksman and Dawson, 2023; Sefalafala, 2024). And indeed, research by Bhorat and Köhler (2025) found that unconditional grants can actually improve employment outcomes, by reducing the barriers to searching for work. The second concern is that a BIG is fiscally unsustainable, given South Africa's public debt crisis (Sachs et al., 2023). This view is contested

by civil society organisations who argue that a BIG is fiscally feasible through a mix of deficit spending, modest increases in personal and Value Added Tax (VAT), the rationalisation of tax expenditure subsidies and the phase-in of a wealth tax (Expert Panel on Basic Income Support, 2021). The third concern is that a BIG could divert resources from other core public services, such as health and education. Although a legitimate concern, given South Africa's austerity policies that have systematically eroded spending on public services (Sachs et al. 2023), it is important to note that this is not the product of a BIG but of government's policy.

Ultimately, as Castel-Branco and Pons-Vignon (2025) argue, size matters: a BIG will only be a meaningful contribution to the just transition if its value is adequate. The South African government has reaffirmed its intention to institutionalise the BIG, complementing it with active labour market policies aimed at promoting skills development, entrepreneurship and employment creation (SABC, 2025). However, there is little clarity about what the level of the grant will ultimately be. The Universal Basic Income Coalition (UBIC) – a network of civil society organisations – has put forward several policy options, benchmarked against South Africa's three poverty lines: the Food Poverty line (FPL) to address hunger, the lower bound poverty line (LBPL) to lift people above the level of subsistence, and the upper bound poverty line (UBPL) to provide a foundation for meaningful livelihood transitions. The UBIC recommends a phased approach, starting at a lower level and gradually rising to the UBPL (Universal Basic Income Coalition, 2023). Crucially, how the BIG is financed will determine its transformative potential. If funded through regressive taxes or the reallocation of resources away from essential public services, its redistributive potential will be significantly curtailed. To succeed, a BIG must be coupled with new progressive revenue streams, including taxes on wealth and high-income earners (UBIC, 2023). This will ensure that a BIG strengthens rather than weakens South Africa's broader social contract.

Public Employment Programmes and a Job Guarantee

South Africa has one of the most expansive PEPs on the African continent, implemented through the EPWP and the PES. Launched in 2003, the EPWP remains the only large-scale programme that aims to respond to the needs of able-bodied adults of working age. Administered by the Department of Public Works and Infrastructure (DPWI), it provides temporary work opportunities and skills training to the unemployed. However, because workers are treated as welfare recipients, they are paid well below the national minimum wage and are not covered by standard labour protections (DoL, 2012). Since its inception, the EPWP

has generated approximately 13.2 million work opportunities, mostly in the infrastructure, environmental and social sectors (Antonopoulos and Kim, 2017; Shandu et al., 2022). These opportunities typically last between three and twelve months, depending on the nature of the programme, though participants may reapply. An exception is the Community Works Programme (CWP), which employs workers through non-profit implementing agents for up to 100 days of work per year, in sectors such as food security, healthcare and education (Andersson and Alexander, 2016; Philip, 2012).

While the EPWP has created millions of work opportunities, its design does little to curb labour insecurity. Jobs are part-time, short term and often poorly supervised, making it difficult for workers to develop the assets and skills necessary to ‘graduate’ to more meaningful livelihood strategies (Devereux and Sabates-Wheeler, 2015; McCord and Slater, 2015). The official rationale for the part-time character of the work is that it gives participants the option to combine the EPWP with other income-generating activities. Yet, in the context of chronic unemployment, finding alternative sources of work is extremely difficult, even though workers aspire to this (Mubangizi and Dladla, 2024). Moreover, EPWP participants are paid just R15.83 per hour, which is almost half the national minimum wage of R28.79 per hour. Government justifies the subminimum wages on the grounds that it prevents labour market distortions and incentivises the pursuit of alternative forms of work (RSA, 2019) but, in reality, workers are locked into ultra-low wages and precarious working conditions (Barchiesi, 2011; Scully and Moyo, 2022). Nevertheless, supporters argue that the EPWP is socially meaningful for the unemployed: it adds structure to the day, reduces the stigma of unemployment and restores dignity to the unemployed (Wiltshire, 2016). The key question, therefore, is not whether to have a PEP in place but how to transform PEPs into meaningful and dignified work.

In 2020, the government launched the PES in response to the economic fallout from the Covid-19 pandemic. Coordinated by the Presidency in partnership with 15 national departments – as well as provincial, municipal and private sector actors – the PES created more than 1.7 million “work and livelihood opportunities” for unemployed South Africans over four years. Of these, 84% were youth and 64% were women (PES, 2024). Key programmes included the Basic Education and Employment Initiative (BEEI), which placed more than 1.1 million young people as school assistants in public schools; support for small-scale farmers, including the distribution of 142 000 input vouchers to bolster food security and improve rural livelihoods; assistance to 54 000 Early Childhood Development (ECD) practitioners, helping to reopen and

sustain early childhood centres; grants to 85 000 community-based organisations, through the Social Employment Fund (SEF) and National Youth Service (NYS); and financial support for 32 000 creatives to produce cultural content, including films, animations and books (PES, 2024).

The BEEI is widely regarded as the largest youth employment programme in South Africa's history. Unlike the EPWP, workers are offered full-time employment at the national minimum wage for a period of eight months. Evaluations show that the BEEI provided unemployed youth with valuable work experience in administration, communication and teaching. At the same time, under-resourced public schools benefited from additional support staff, reducing teachers' administrative burdens, improving classroom management and enhancing learner engagement. Evidence also suggests that employment through the BEEI increased household consumer spending, generating positive spillover effects on employment and incomes beyond the programme itself (Bassier and Budlender, 2024). The PES has been internationally recognised for innovation in employment creation, particularly in urban contexts (IDC, 2024). The government acknowledges that PEPs alone cannot deliver sustainable livelihoods and that they must be complemented by a social grant system. Nevertheless, they offer an additional layer of protection in response to climate change and decarbonisation policies by creating opportunities for socially valuable work that builds adaptive capacity, strengthens public services and develops skills for emerging green sectors. Ultimately, PEPs help to bridge the gap between short-term relief and long-term transformation, by strengthening the reliance of communities and promoting a just transition to a low-carbon economy (PES, 2024).

Public Services and the National Health Insurance Scheme

While this study focuses primarily on the expansion of income support for the unemployed, it is important to recognise that gender-sensitive social protection also involves the universal provision of quality public services, including healthcare. South Africa has a segregated and unequal healthcare system, characterised by an under-resourced public sector and a well-developed private healthcare system. Over 80% of the population depends on public facilities, which are inefficiently managed and chronically understaffed (Schütz, 2024; Wright et al., 2019). Conditions are particularly dire in rural areas, where the public sector struggles to address emerging health threats, such as climate-induced diseases and conditions (Wright et al., 2019).

The National Health Insurance (NHI) Act, enacted in South Africa in May 2024, represents a major step towards universal healthcare coverage. It seeks to pool resources through a public fund (Schütz, 2024; Wright et al., 2019), thereby eliminating the two-tier healthcare system (Mkhwanazi, 2024) and guaranteeing essential healthcare services for all (Department of Health, n.d; Wright et al., 2019). Proponents argue that the NHI will allow for the targeted management of healthcare needs in vulnerable communities, especially rural areas prone to climate-related health threats (Schütz, 2024). This includes specialised attention to conditions such as HIV, tuberculosis, chronic non-communicable diseases and priority healthcare for maternal, child and geriatric groups, significantly enhancing adaptability to climate-induced health issues (Schütz, 2024). The scheme will be funded by general taxes and matched employee–employer contributions.

The NHI has the potential to contribute to climate resilience by ensuring universal access to quality healthcare and facilitating coordinated adaptation through integrated cross-sector approaches and centralised management systems (Traoré and Tetka, 2025). Furthermore, the centralised healthcare data system envisioned by the NHI could be used to manage, monitor and respond to public health emergencies related to climate shocks (Wright et al., 2019). The scheme will be funded by general taxes and matched employee–employer contributions. Aligning the NHI with South Africa’s broader just transition agenda enhances its potential to mitigate adverse health impacts associated with climate change and decarbonisation policies (Makgetla et al., 2019; Marais et al., 2019).

Experts estimate that it may take up to three decades to fully implement the NHI. The first stage will focus on foundational legal frameworks, resource planning and infrastructure strengthening (Schütz, 2024). However, many are sceptical about the viability of the NHI, given the dire state of South Africa’s public healthcare system (Schütz, 2024; Wright et al., 2019). Transparency and accountability concerns remain high, amid fears of potential corruption and mismanagement (Mkhwanazi, 2024). The financial model underpinning the NHI has been criticised for being overly optimistic, given the country’s stagnant growth rate, rising unemployment and growing fiscal crisis (Department of Health, n.d.; Mkhwanazi, 2024). In addition, anticipated resistance from the private healthcare sector complicates efforts to integrate these services effectively (Schütz, 2024). Successful implementation will require meticulous planning, transparent governance and extensive stakeholder involvement to address

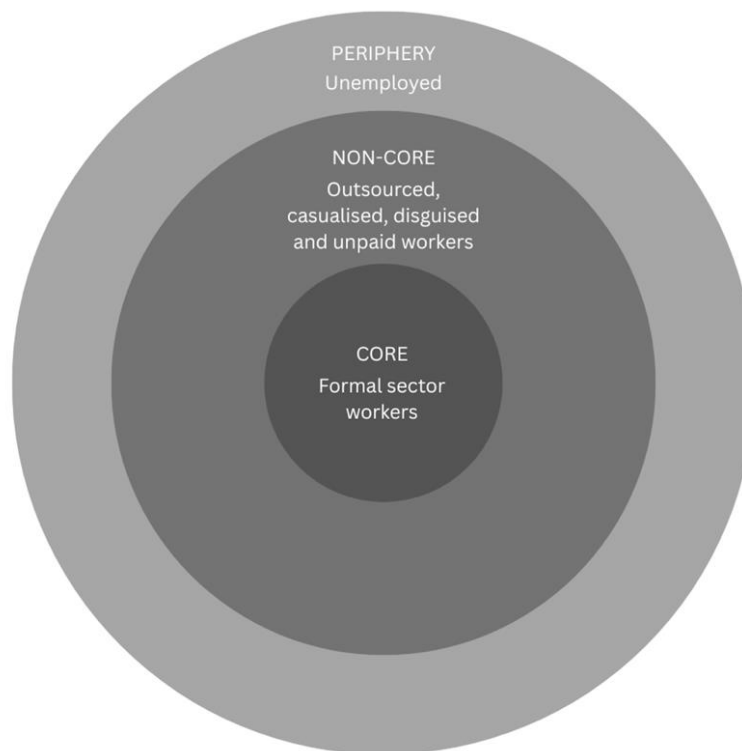
systemic challenges. Nevertheless, implementing the NHI will be vital for realising South Africa's commitment to universal healthcare coverage.

Ultimately, a just transition to a low-carbon economy must confront the inequalities that structure South African society and ensure universal and equitable access to social protection. South Africa has an extensive social protection system, but it is uneven and fragmented. Contributory social insurance offers protection for a core group of formal sector employees but excludes the majority of casual, informal and unpaid workers. Meanwhile, tax-financed social assistance provides essential income support to vulnerable households but does not offer reliable support to unemployed adults of working age. While the PEPs do provide minimal income relief to a targeted group of unemployed people, there is widespread debate over the quality and meaningfulness of the work opportunities created. The Covid-19 pandemic created the possibility for policy innovation, most notably through the scale up of the SRD and the rollout of the PES. These initiatives have surfaced important lessons and shaped emerging proposals for a comprehensive social protection system.

Policy Considerations: Towards a Comprehensive Social Protection System for a Just Transition

In considering the policy options towards a comprehensive social protection system for a just transition, it is critical to consider the structure of South Africa's labour market. As Buhlungu and Webster note (2006: 251), labour restructuring in the neoliberal era resulted in a) a shrinking core zone, occupied by skilled permanent workers who enjoy relatively high wages, benefits, good working conditions and job security; b) an expanding non-core zone, occupied by semi-skilled and non-skilled workers in precarious jobs who earn low wages, enjoy no benefits, work under poor conditions and have little or no job security; and c) a growing periphery, which is occupied by those in the informal sector and the unemployed. As Figure 3 illustrates, the structure of the labour market influences how climate shocks and decarbonisation policies affect workers' livelihoods and the terms of social reproduction.

Figure 3: A view of the South African labour market



Source: adapted from Webster and Francis (2019)

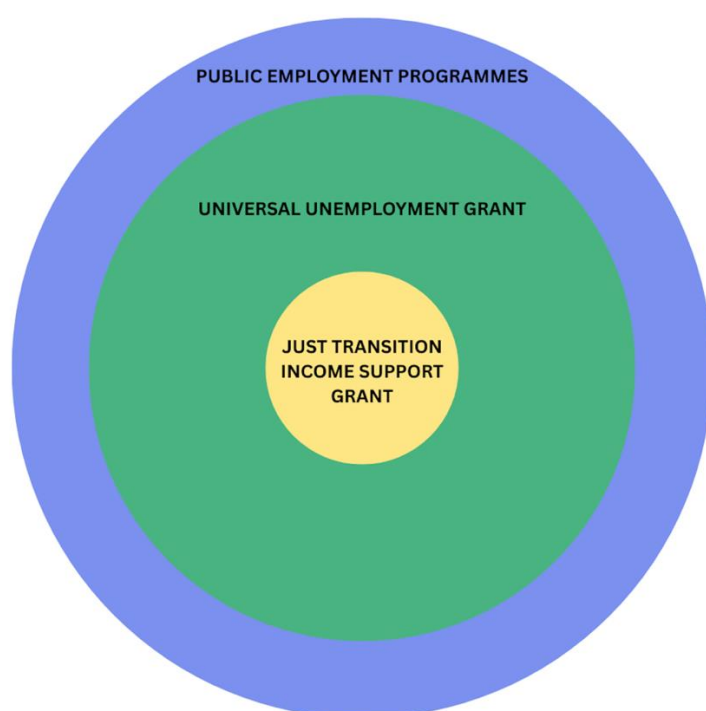
To demonstrate the application of the core, non-core and periphery workers in the context of the transition, we will use the example of the coal town. In a coal town such as eMalahleni in Mpumalanga, there is a core group of formal sector workers who have jobs in the coal mine. Then there are sub-contractors who provide security and various other services on the mine and who hire workers on short-term casual contracts – the non-core workers. Those on the periphery include the informal workers who sell food and goods on the street corners around the mine, and the women and other care workers who cook and clean in the household and community level. There are also workers in other sectors of the economy, such as retail, who rely on core workers as their customers. If the coal mine were to close down, every single group described above would be negatively impacted in terms of their income. This is why a comprehensive and economy-wide approach to social protection is necessary that combines several policies to ensure that nobody is left behind. We therefore provide several policy options that should be considered together, rather than separately, to support a truly just transition. The combination of the policies also allows for more flexibility in how they are implemented, which must be carefully negotiated between stakeholders.

However, our fieldwork research in the solar energy industry suggests that there is no guarantee that the employment created will necessarily result in decent work. After all, South Africa may have strong employment protections, but it exhibits high levels of labour casualisation. Casualisation has led to a shrinking core of permanent workers and an expansion of non-core precarious and informal workers with no labour or social protection (Buhlungu and Webster, 2006). Attempts to reverse this trend have been largely unsuccessful due to workers' relatively limited structural power, in the context of widespread unemployment (Sefalafala et al., 2023).

The emerging solar photovoltaic industry in South Africa holds some hope of job creation in the transition. In the utility-scale sector, many jobs are created during the first years of construction. However, only a small handful of people stay on during operations and maintenance. These are generally good jobs – well paid, good benefits and paying into social insurance schemes – but are simply very few. This is very different from the rooftop solar industry, which has low barriers to entry and employs a much larger number of workers. Within the rooftop solar industry, there are a diversity of work arrangements, with larger companies offering more secure and better protected employment, while smaller companies offer highly casualised and irregular work. As in much of the construction industry, workers are employed on an ad hoc and short-term basis and their employers often do not pay into their unemployment insurance or pension schemes.

The effects of climate shocks and decarbonisation policies create numerous uncertainties. According to the ILO, for the transition to a low-carbon economy to be just, governments must build on and strengthen social protection systems. This requires applying the key principles of social protection outlined in Recommendation 202 concerning national social protection floors, which includes universal coverage throughout the life cycle, also in times of transition; comprehensive coverage of social risks, including income support in the case of unemployment; adequate protection that allows people to lead dignified lives; and instituting the mechanisms to raise the revenue necessary to expand the social protection system in a fiscally sustainable manner (ILO, 2023). Figure 4 provides an overview of three social protection measures for consideration towards a just transition in South Africa.

Figure 4: Social protection measures towards a just transition in South Africa



Source: Authors

Policy consideration 1: Just Transition Income Support Grant (JTIS)

Despite net employment growth, Rogan et al. (forthcoming) estimate that between 20 000 and 55 000 people – primarily in the agricultural and mining sectors – are likely to become unemployed. Estimates by Bhorat et al. (2025) put the number at 106 887 just in the coal value chain. The estimates by Makgetla et. al (2019) are even more concerning, putting the total number of jobs at risk at 625 000, when one includes the petroleum transport sector. The first policy option is to introduce an unconditional JTIS grant, set at the level of the national minimum wage for workers in the formal sector directly displaced by the transition. One source of financing is the UIF. Currently, contributors to the UIF receive one day of unemployment benefits for every six days contributed over the last four years, up to a maximum of 238 days. Special eligibility criteria for workers directly affected by decarbonisation policies could allow for a lengthier coverage period and higher benefits. These measures could also be tied to reskilling and upskilling opportunities in order for unemployed workers to re-enter the labour market.

Policy consideration 2: Universal Unemployment Grant (UUG)

The absence of a permanent social grant for able-bodied adults of working age is widely acknowledged as the largest gap in South Africa's social protection system. While the SRD grant has made significant strides in expanding coverage for this group, a missing middle remains due to strict eligibility criteria and inadequate levels of support (Bhorat et al., 2024). Reviewing the eligibility criteria and removing the income threshold would ensure universal and equitable access to social protection. We recommend a permanent grant pegged at the UBPL – currently set at R1,634 a month. This would provide a stronger foundation for meaningful livelihood transitions in the context of climate change and decarbonisation. The UBIC has proposed a phased approach that begins at the FPL and gradually increases to the UBPL (UBIC, 2023). This model offers both fiscal flexibility and a clear pathway towards comprehensive and adequate coverage. Although new sources of revenue will have to be generated, the burden on the fiscal envelope is likely to decrease over time as unemployment declines – provided that the jobs generated meet the standards for decent work (Rogan et al., forthcoming).

Policy consideration 3: Public Employment Programmes (PEPs)

PEPs can play a vital role in reducing poverty and promoting socio-economic wellbeing, but their impact depends on careful design and implementation. Evidence shows that PEPs of a longer duration and that pay higher wages are more effective in delivering sustainable benefits. The Congress of South African Trade Unions (COSATU) has called for a targeted job guarantee to support workers directly displaced by the transition to a low-carbon economy (COSATU, 2022). The objective of this proposal is to ensure that affected workers are reskilled and reintegrated into emerging industries, such as recycling, renewable energy and public infrastructure services, in the transition. Implementing such a job guarantee would require close coordination between government, trade unions and the private sector – particularly companies facing closures or restructuring due to the green transition (COSATU, 2022).

Therefore, we recommend the expansion of the PEPs for unemployed adults, with a strong emphasis on projects that enhance climate resilience and social infrastructure, such as biodiversity conservation, water and healthcare infrastructure, and sustainable transport (Ding and Hirvilammi, 2024). In line with expert projections, this would mean scaling up to 2.4 million work and livelihood opportunities in the medium term, phased in gradually. Second,

we recommend that all PEPs, including the EPWP and the PES, pay workers in line with the national minimum wage. Given that PEPs are not conceived of as a conditional cash transfer but rather a valuable work experience, it is critical that they provide dignified and meaningful work. Third, we recommend that the duration of the contract be extended and skills training programmes strengthened to ensure that people are able to acquire the meaningful skills training necessary to pursue other livelihood opportunities. Finally, we recommend that 30% of the budget for PESs is allocated to programme investment and operational costs, including inputs, management and other overheads. One of the challenges in past programme implementation has been the lack of forward planning and budget certainty. Therefore, the budget should be allocated to PEPs for a five-year period and allow for two years of planning to reach the optimum number of work and income opportunities.

Policy consideration 4: Unemployment Insurance and the National Social Security Fund (NSSF)

Social insurance schemes are a crucial source of financing for social protection. Even in low- and middle-income countries, social insurance accounts for an equal if not higher share of GDP than social assistance (Calligaro and Cetrangolo 2023). Therefore, it is critical to leverage social insurance to protect workers and communities from climate change and decarbonisation policies. In the short term, this involves adapting existing programmes under the UIF to advance a just transition. Across the African continent, countries have extended social insurance to informal and self-employed workers. In Brazil, local government revised the eligibility requirements and unemployment benefits to address climate disasters. And in Germany, the state introduced an income-replacement bridge and pension top-ups for older workers in sunset sectors in order to facilitate early retirement (ILO, 2024). While South Africa has much to learn from international experience, the absence of a public pension fund in South Africa creates a gap between short- and long-term benefits. In the medium term, the proposal for an NSSF should be revisited.

The next section provides a scenario-based costing model of the fiscal implications of the social protection recommendations. The costing exercise examines three measures: a) targeted support for workers directly displaced by decarbonisation policies, b) universal income support for the unemployed and c) climate-responsive public employment programmes. For each measure, we estimate the fiscal implications under minimalist, moderate and maximalist scenarios. These social protection measures, in combination, could provide comprehensive

support for all types of workers in the transition, not only the formal workers, which is vital in the pursuit of a truly just transition. Furthermore, public employment programmes focused on climate-resilient infrastructure can also be considered part of South Africa's adaptation to climate change.

Investing in Social Protection for a Just Transition

Social protection is a critical policy tool that mitigates the adverse impacts of both climate change and decarbonisation policies (ILO, 2023). However, for social protection to play a meaningful role in the process of transition, it must be adequately financed to ensure universal and sufficient levels of coverage (Adesina, 2020; Mkandawire, 2011). Too often, social protection systems are designed in function of the fiscal space available rather than the other way around (Hujo and McClanahan 2009; Schmitt et al., 2020). This approach often results in residual and narrowly targeted programmes that fall short of addressing structural vulnerabilities. If the transition to a low-carbon economy is to be fair, equitable and just, governments must identify and mobilise new sources of financing to support the meaningful expansion of social protection. This section evaluates the fiscal implications of three measures proposed in the previous section. For each, we model a minimalist, moderate, and maximalist scenario. Rather than prescribing a single package of measures, this modular approach costs each measure independently. This allows policymakers to assess the fiscal footprint, trade-offs, and implementation considerations of different measures before deciding on an optimal combination:

1. Just Transition Income Support (JTIS) scenarios: A targeted grant for individuals who lose jobs as a result of the shift to a low-carbon economy. This grant is set at the national minimum wage and is based on cumulative job losses projected in modelling conducted by Rogan et al. (forthcoming). The grant amount is adjusted annually in line with Consumer Price Index (CPI) inflation.
2. Universal Unemployment Grant (UUG) scenarios: A cash-based income grant for unemployed individuals, defined broadly (including discouraged work seekers). This module tests variations in grant levels that reflect different policy objectives. Grant levels are adjusted annually in line with CPI inflation.

- a) Minimalist scenario – permanent grant set at the FPL, which would alleviate hunger but would not necessarily lift people above the level of sustenance. In 2024, this was R796 per month.
 - b) Moderate scenario – permanent grant set at the LBPL, which would lift people above the level of sustenance but would not necessarily provide a strong foundation for meaningful livelihood transitions. In 2024, this was R1090.
 - c) Maximum scenario – permanent grant set at the UBPL, which would provide a stronger foundation for meaningful livelihood transition. In 2024, this was R1634.
3. Public Employment Programme (PEP) scenarios: A set of publicly funded employment opportunities, modelled at three different scales and remunerated at the national minimum wage. These scenarios present a continuation of existing public employment interventions designed to provide work opportunities as part of a just transition. The wage level is indexed to annual CPI inflation.
- a) Minimalist scenario – creation of 1 million work and income opportunities, in line with current numbers for the EPWP and PES.
 - b) Moderate scenario – creation of 1.4 million work and income opportunities, in line with expert projections of how many workers could be absorbed into public employment schemes in the short term.
 - c) Maximalist scenario – creation of 2.4 million work and income opportunities, in line with expert projections of how many workers could be absorbed into public employment schemes in the medium term.

Public Finance Assumptions

To assess affordability, the costed scenarios are based on a consistent set of macro-fiscal assumptions. First, nominal GDP projections for the period 2025–2027 are sourced from the National Treasury’s 2025 Budget Review (National Treasury, 2025). For the period beyond this, 2028–2050, the model uses the International Monetary Fund’s medium-term nominal GDP outlook (IMF, 2025). Based on these projections, it is assumed that main budget revenue will grow in line with nominal GDP for the entire period. Main budget non-interest expenditure, excluding additional provisions for a just transition, is assumed to grow at about

1% per year in real terms. This is below nominal GDP, assuming that government maintains its policy of fiscal consolidation, thereby moderating expenditure growth and debt accumulation. As a result, the primary deficit narrows across the projection period. This creates some fiscal space for trade-offs, though it reinforces the need to assess the affordability of additional social protection interventions, because once the additional costs associated with just transition scenarios are included, the primary deficit narrows. To ensure that the costing exercise represents the net fiscal impact of new interventions, the 2025 baseline for main budget expenditure excludes existing allocations to the SRD, the EPWP and the PES. This is done to ensure double counting is avoided, and that only additional costs of a just transition are measured.

Data and Sources

Several data sources inform the costing scenarios. Population estimates and growth rates are drawn from the United Nations World Population Prospects medium variant scenario, assuming a growth rate of 0.81% per annum (United Nations, Department of Economic and Social Affairs, Population Division, 2024). In addition, labour market data for unemployment is derived from the Stats SA Quarterly Labour Force Survey (QLFS) for Quarter 1 of 2025 (Stats SA, 2025). Also drawn from Stats SA are the 2024 estimates of the LBPL and the UBPL (Stats SA, 2024). The national minimum wage in 2025 as determined by the Department of Employment and Labour is used as the baseline (Department of Employment and Labour, 2025). Job losses under low, moderate and high emissions cap scenarios are estimated from modelled estimates by Rogan et al. (Rogan et al., forthcoming).

Furthermore, as discussed above, national budget data pertaining to GDP, inflation, revenue and expenditure are sourced from the National Treasury Budget Review 2025 (National Treasury, 2025). Similarly, medium- to long-term GDP projections are sourced from the IMF World Economic Outlook (IMF, 2025). Finally, administrative costs included in the model are estimated from a variety of sources. It is assumed that there is a 3.5% overhead for social grant delivery, based on benchmarks from SASSA (SASSA, 2023). This aligns with international norms for large-scale cash transfers ranging from 2% to 5% (United Nations Development Programme, 2021; World Bank, 2018). For public employment programmes, the administrative cost is assumed to be 15% based on evidence from EPWP evaluations (National Treasury, 2011) and international experience with labour-based safety nets (ILO, 2016; World Bank, 2015). These costs reflect supervision, project management, wage processing and

procurement systems that are not required for direct cash transfers. Based on these assumptions and data sources, each costing module uses a subset of these inputs appropriate to its design. The scenarios incorporating these are set out below.

Assumptions and Methodology

The costing adopts a scenario-based modelling approach, disaggregated across the three costing modules, each with tailored parameters and logic. These three modules are universal unemployment grant (UUG) scenarios, public employment programme (PEP) scenarios and just transition income support (JTIS) scenarios. The UUG scenarios estimate the cost of a universal income grant for unemployed adults from 2026 to 2050, presented in nominal rand terms, as a share of GDP, and as a share of main budget expenditure. Grant values are adjusted to align with either the LBPL or the UBPL. In terms of coverage, the costs reflect coverage at broad unemployment levels (unemployed including discouraged work seekers). It is assumed that for these scenarios there is a take-up rate of 90%. A 90% uptake assumption is supported by administrative and empirical benchmarks from South Africa's Old Age and Child Support Grants (Neves et al., 2009), global experience with universal social protection systems (ILO, 2017) and demand-side evidence from the SRD grant during the Covid-19 crisis (DSD et al., 2021). Finally, the grant value is adjusted annually in line with CPI inflation.

For these UUG scenarios, it is assumed that the unemployment rate remains constant at the 2025 baseline over time. However, this rate does incorporate changes in the absolute number of unemployed individuals, driven by population growth in the 15–64 age cohort, which is estimated to grow at a compound average growth rate (CAGR) of 0.77% between 2025 and 2050 (United Nations, Department of Economic and Social Affairs, Population Division, 2024). This reflects a neutral labour market trajectory in the absence of structural employment change. In addition, CPI inflation is taken to be 3.6% in 2025 (National Treasury, 2025) and 4.5% thereafter, in line with the midpoint of the current inflation target range. As discussed above, nominal GDP growth is drawn from National Treasury and IMF projections (IMF, 2025; National Treasury, 2025). These scenarios also assume a 3.5% administrative cost.

In addition to the constant-rate scenario, we also use a second set of unemployment numbers, based on projections of strong employment growth. These are generated using the UCT SATIMGE CGE and microsimulation models, which provide estimates of employment over the forecast horizon across medium and high economic growth scenarios and under different

emission caps. For our analysis, we focus on the medium growth scenario and select the 8GT emission cap scenario, noting that alternative medium growth emission caps yield no material differences in labour market outcomes. We then apply the models' annual estimates of the working-age population to the most recent labour force components drawn from Stats SA's QLFS and combine these with the UCT SATIMGE CGE and microsimulation employment estimates to derive the projected unemployment rates and numbers across the horizon. Together, these two approaches allow us to present UUG scenarios under both a neutral labour market trajectory (constant unemployment rate) and a structural improvement trajectory (strong employment growth).

The PEP scenarios estimate the cost of expanding public employment through three scaled options from 2025 to 2050, expressed as nominal rand terms, share of GDP and share of main budget expenditure. A minimalist scenario would provide 1 million job opportunities in 2025, a moderate scenario would provide 1.4 million job opportunities in 2025 and a maximalist scenario would provide 2.4 million job opportunities in 2025. Several assumptions inform this. Remuneration is costed at national minimum wage levels, adjusted in line with CPI inflation. In addition, job opportunities are assumed to be full-year equivalents. Furthermore, the number of jobs in projections beyond 2025 are assumed to grow in line with population growth of the working-age population. As discussed above, the administrative cost of this would be an additional 15% of the budget. Finally, these programmes would not be means tested and would be open to all working-age individuals.

The JTIS scenarios estimate the cost of supporting individuals who lose employment due to de-carbonisation and the transition to a low-carbon economy. This is estimated from 2026 to 2050, expressed as nominal rand terms, share of GDP and share of main budget expenditure. This makes several assumptions. Job losses are estimated by the modelling conducted by Rogan et al. (Rogan et al., forthcoming). These estimates inform the number of workers included in this scenario. The grant level is set to be at the national minimum wage, adjusted annually to CPI inflation. It is assumed that displaced individuals remain unemployed and continue receiving the grant in subsequent years, with no reabsorption assumed. It is also assumed that due to the traceability of the target group, there is a 100% take-up rate. Finally, as discussed above, administrative costs are held to be 3.5% of budgets.

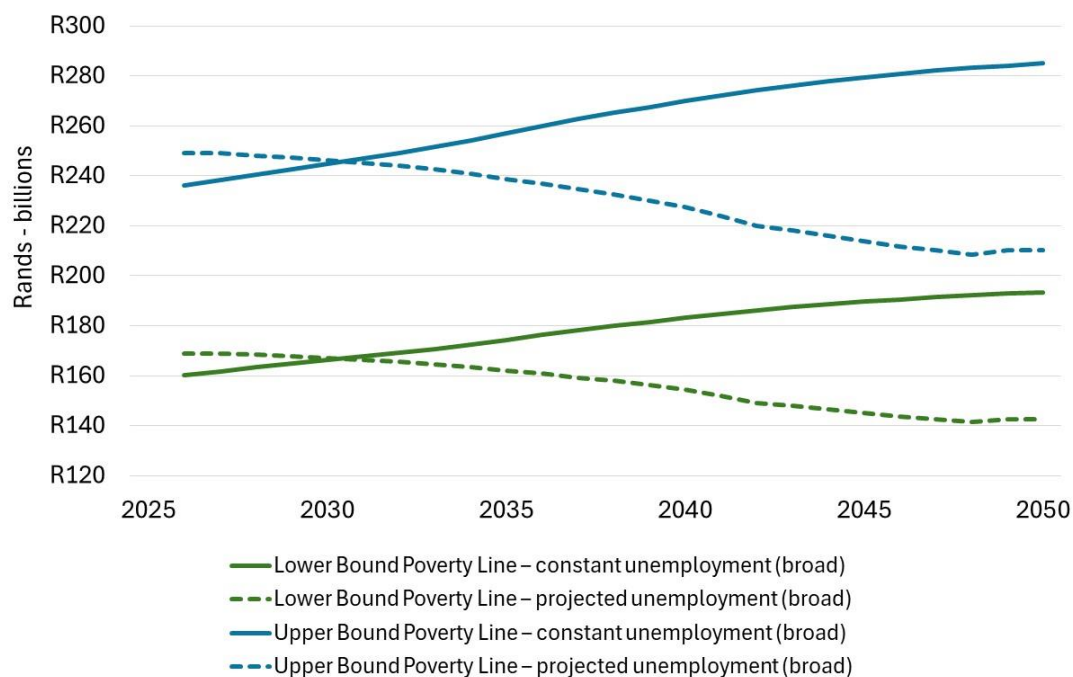
Costing Results

The fiscal implications of social protection measures were modelled under different scenarios for coverage and benefit levels over time, using the broad definition of unemployment. These costs represent an additional cost to the government's existing social assistance, social protection (excluding the SRD grant) and public employment expenditure, which already accounts for 3.3% of GDP (Bhorat and Köhler, 2025). Figures 5 and 6 illustrate the cost in rands of the three interventions over time. In absolute terms, the cost of the UUG – assuming constant unemployment – the Public Employment Programme and JTIS all increase over time. As expected, the cost of the unemployment grant varies substantially depending on the grant amount, with the grant at the LBPL costing the least, and a grant at the UBPL being the most expensive. The public employment interventions are generally more expensive than the unemployment grant due to higher amounts and significant administrative costs. The costs of the moderate and minimalist public employment scenarios are notably lower than the maximalist options due to comparatively lower employment levels. Overall, the just transition income grant has the lowest cost of all the interventions. Over time, the cost of each of these interventions increases consistently as the absolute number of grantees rises. In contrast, the absolute cost of the UUG – based on unemployment assumptions with a marked improvement in employment growth – declines over time. This reflects not only the decrease in the unemployment rate, but also the absolute number of unemployed decreasing consistently throughout the forecast horizon, as employment growth outstrips labour force growth.

Figures 7 and 8 illustrate the cost of these interventions as a share of GDP, revealing trends similar to the previous graphs regarding the comparison between interventions. However, the cost relative to GDP declines over time for all interventions, attributed to slower population growth and strong labour market performance in scenarios utilising projected unemployment from the SATIMGE model. As anticipated, the cost of the unemployment grant varies significantly based on its scope and amount; the highest cost option is approximately 1.5 times the cost of the lowest cost option. Over time, this range narrows to between 1.1% and 2.3% of GDP by 2050. Public employment programmes show a wider fiscal range, starting at 0.9% to 2.1% of GDP in 2026 depending on the scale of job creation (1 to 2.4 million workers). Costs decline over time to between 0.7% and 1.6% of GDP as employment and productivity improve. The JTIS has the smallest fiscal footprint, beginning at 0.07% of GDP and peaking around 0.35% of GDP by 2040, before tapering slightly. The low cost reflects the narrow and targeted

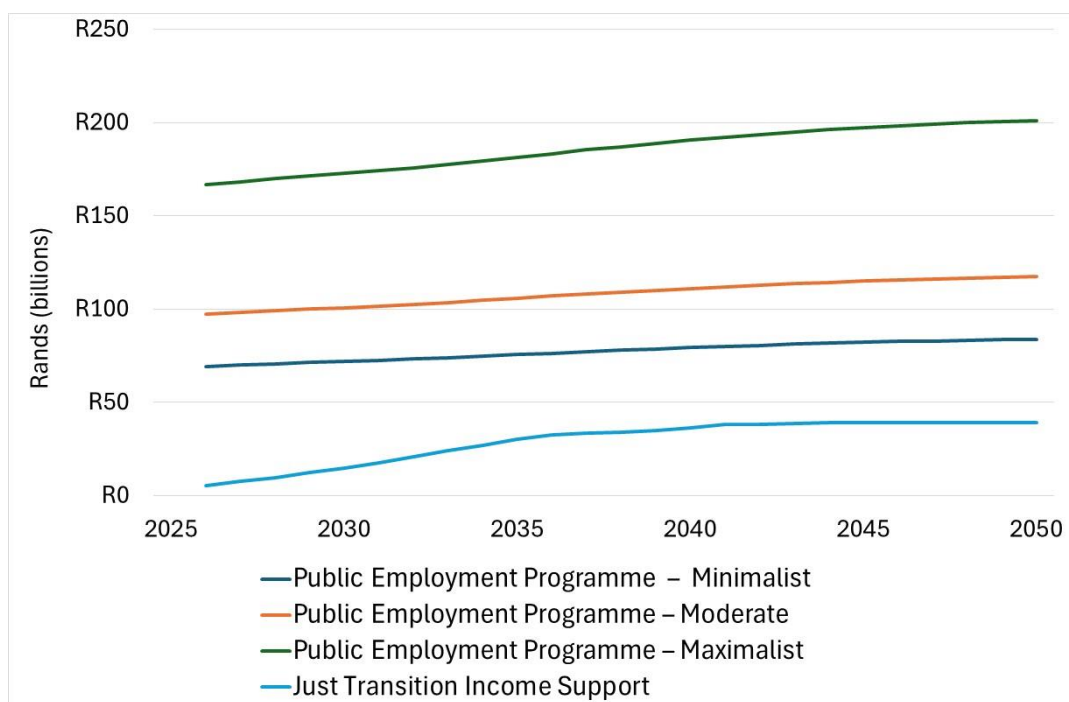
coverage, while the increase over time is due to cumulative displacement and population growth.

Figure 5: Annual cost of universal unemployment grant – constant 2025 rands (billions)



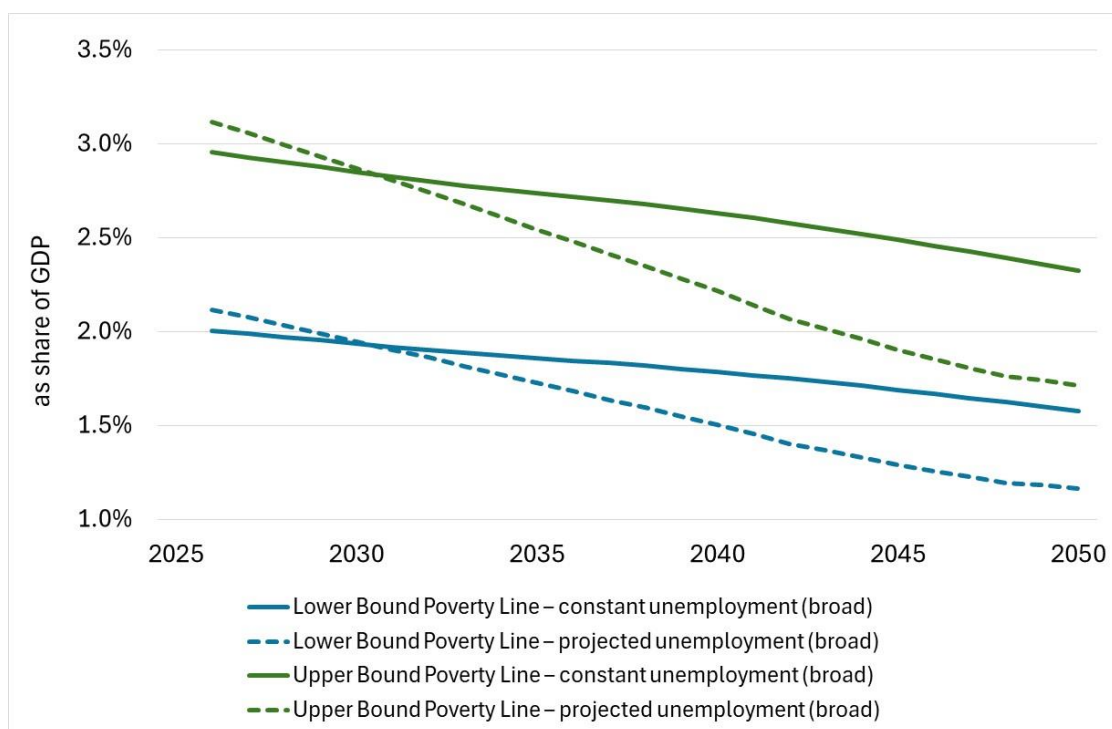
Source: Authors

Figure 6: Annual cost of public employment programme and just transition income support – constant 2025 rands (billions)



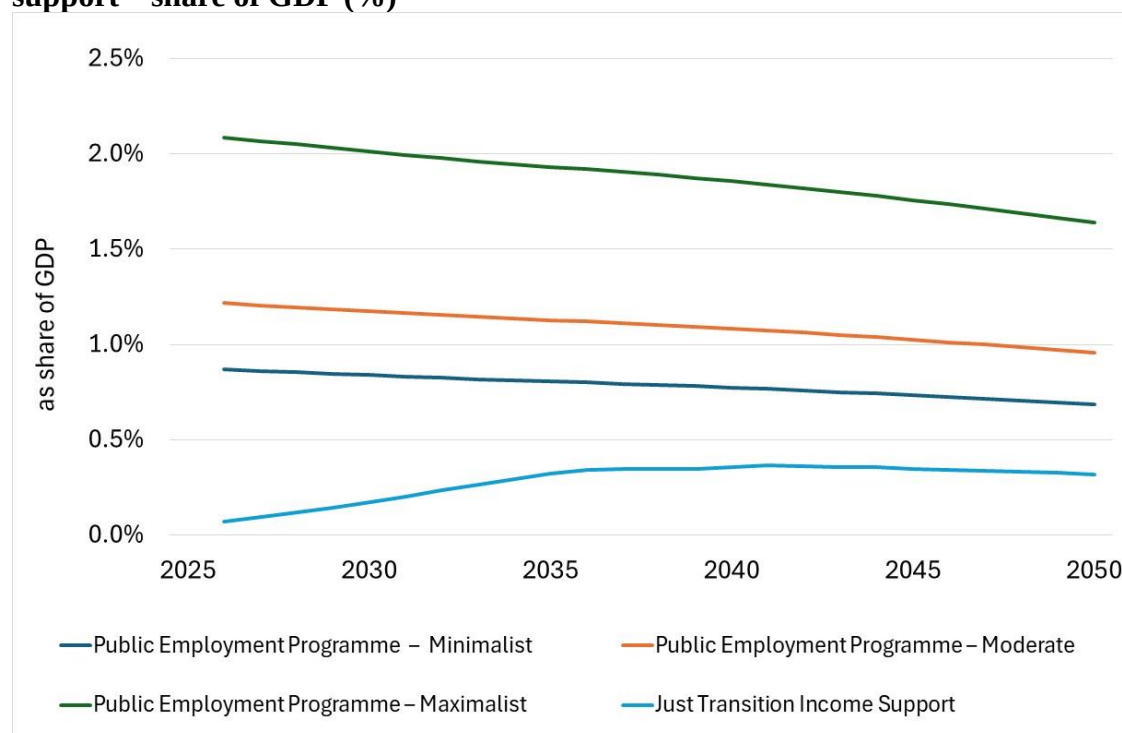
Source: Authors

Figure 7: Annual cost of universal unemployment grant – share of GDP (%)



Source: Authors

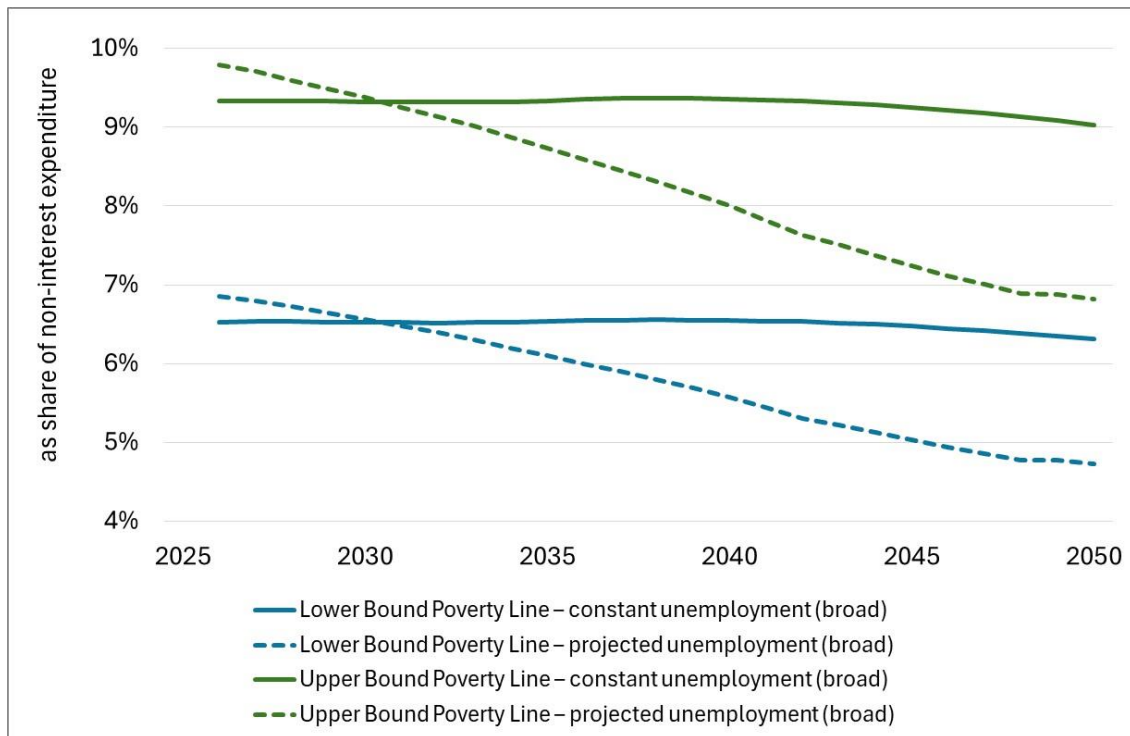
Figure 8: Annual cost of public employment programmes and just transition income support – share of GDP (%)



Source: Authors

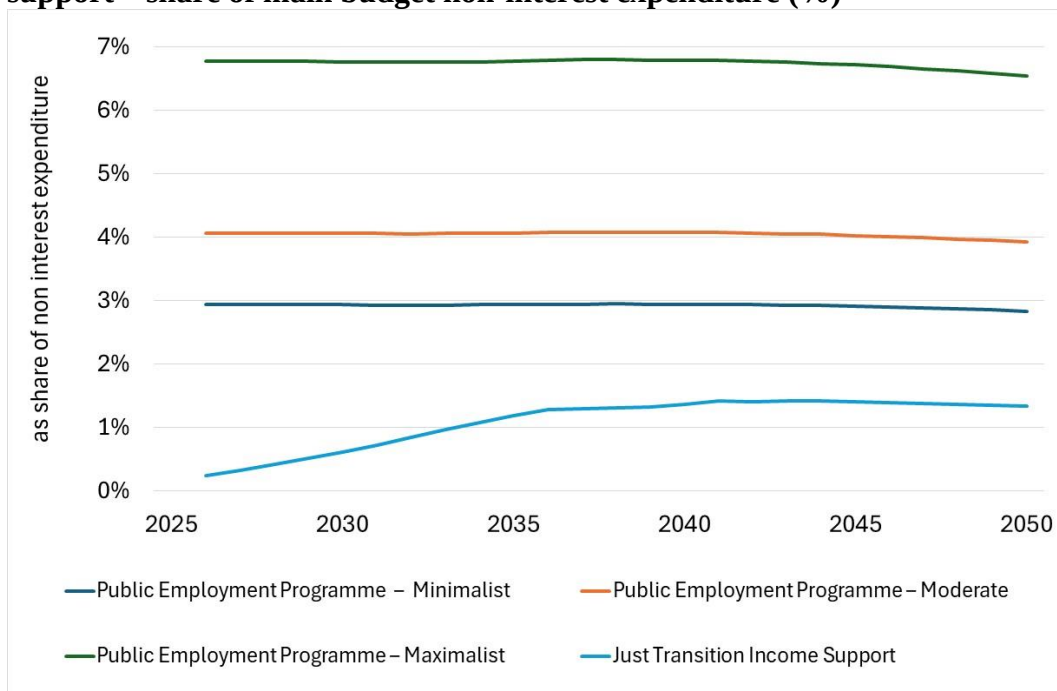
The main budget expenditure shows a similar spread in costs. In 2026, the UUG is projected to cost between 6.5% and 9.8% of main budget non-interest expenditure. Public employment programmes, depending on employment targets, range between 3% and 6.8% of non-interest expenditure in the initial years. All these costs decline over the projection period, with UUG scenarios assuming strong labour market performance showing a rapid fall in costs over the forecast horizon. The cost of the JTIS remains modest as a share of main budget expenditure, starting at 0.24% in 2026, peaking at 1.4% around 2041 and remaining constant.

Figure 9: Annual cost of universal unemployment grant – share of main budget non-interest expenditure (%)



Source: Authors

Figure 10: Annual cost of public employment programmes and just transition income support – share of main budget non-interest expenditure (%)



Source: Authors

Costing discussion

All of these interventions would represent a significant additional cost to the state under the current macroeconomic and fiscal conditions. As one would expect, the costs of these interventions are dependent on the coverage of the intervention and their adequacy, with higher coverage and amount resulting in an increased cost in absolute terms. As a proportion of GDP and as a share of main budget non-interest expenditure, these costs decline modestly over time assuming modest growth in real GDP in per capita terms, and a stable unemployment rate between 2025 and 2050. However, it is important to note that these projections are highly sensitive to macroeconomic assumptions, in particular the performance of the labour market. One scenario assumes constant unemployment over the horizon, while the alternative assumes strong employment growth, and this divergence generates a marked difference in the projected cost of interventions. This sensitivity becomes even more pronounced over the longer projection horizon.

The vast differences between the most comprehensive and narrowest scenarios illustrate the central trade-offs between coverage, adequacy and fiscal sustainability. One way of addressing this is through a phased approach, starting at a lower level of the grant and then gradually increasing its amount. This also becomes more feasible in a context of improved economic growth and increased employment. The public employment programme costs are driven by the number of jobs created, with wages pegged to the national minimum wage. The JTIS has the lowest cost due to highly targeted coverage.

Each of these interventions comes with its own limitations, in terms of cost, difficulty of administration and political feasibility. The JTIS grant, while the cheapest, would likely face significant barriers in implementation. By acknowledging that the transition will have impacts beyond one sector, a social protection response therefore also cannot be limited to one sector. However, being able to identify who loses their jobs due to ‘transition’, and not ‘normal’ economic processes in the agricultural, automotives, steel or manufacturing sectors, as examples, would be extremely difficult. Furthermore, it would be politically hard to justify in a context of mass unemployment and widespread casualisation and precarity in work that those who lose their jobs due to transition are entitled to a grant equivalent to the national minimum wage, at approximately R4 989.88 per month (Department of Employment and Labour, 2025), relative to a grant at the poverty line.

An unemployment grant also faces issues in administration, particularly in identifying who is unemployed (as was seen with the SRD grant), while public employment programmes are difficult to implement successfully with positive outcomes both in terms of productivity and skills for participants. This is essential to ensuring that they do not simply act as conditional cash transfers. While the costs of all these interventions would be substantial, this costing is static and does not account for their impacts on the economy and growth. For example, there is a significant body of literature that reports that these kinds of cash transfers and social protection measures can have positive impacts both in terms of GDP and the labour market. In their study of 42 countries, Cardoso et al. (2025) find that social protection spending has a positive effect on GDP that accumulates over time by increasing household consumption capacity and improving productivity. This positive impact is “especially pronounced in countries characterized by higher inequality” (Cardoso et al., 2025: i). Therefore, they conclude that social protection policies have the potential to both enhance growth and reduce inequality. In the South African context, research on the SRD has shown that grants targeted at unemployed adults of working age can have a positive impact on labour market outcomes in terms of “probabilities of job search, trying to start a business, and employment” (Bhorat and Köhler, 2025: 1).

Neither does the model account for the positive contributions of a public employment programme centred on climate adaptation. If designed and implemented successfully, a programme such as this one could see actual improvements in local infrastructure, and graduation of participants into other forms of work. However, several country-specific factors determine the net economic and labour market impacts of such cash transfers and social protection. Key among these is how public employment and social protection are financed. Funding a structural increase in public spending – especially when such spending is politically challenging to reverse, as demonstrated by South Africa’s experience with the *temporary* Covid SRD grant, necessitates a corresponding structural increase in revenue. This is crucial to avoid defunding other key expenditure areas, such as basic education and infrastructure, to finance increased social protection spending or, alternatively, relying on additional debt issuance. Both of these factors may contribute to a sub-optimal mix of public spending which could negatively impact on service delivery and medium-term economic outcomes. Furthermore, even when matched by an attendant structural increase in revenue, the impact on economic growth and

income distribution depends greatly on the particular revenue instrument(s) employed to fund an increase in social protection spending.

The costing also assumes that South Africa continues to pursue its current fiscal policy objective of stabilising public debt as a share of GDP through narrowing the gap between revenue and non-interest expenditure. The costing thus assumes that non-interest expenditure – excluding social protection associated with a just transition – grows slower than revenue, allowing for a moderating expenditure path. However, in reality this assumption may not hold. Other key expenditure pressures, such as funding for ECD, NHI and further financial support for state-owned enterprises (SOEs) could result in a baseline wherein South Africa's debt does not stabilise as a share of GDP, even without funding increased social protection associated with a just transition. Nonetheless, this costing illustrates that any of these social protection interventions would entail structural increases in public expenditure and either significant reprioritisation or the mobilisation of additional public resources. However, the impact of inaction is also substantial and while delaying implementation of meaningful income support measures may preserve short-term fiscal space, it risks deepening inequality, weakening resilience, worsening economic outcomes and exacerbating social instability. The key insight from the costing exercise is that the issue is not merely one of affordability, but of sequencing and design.

Table 2 provides an overview of the key advantages and limitations of each policy proposal. In summary, we argue for the complementary implementation of a targeted support grant for formal workers, a universal unemployment benefit and public employment programmes due to their strong impacts on inequality and existing implementation infrastructure. The option for a targeted JTIS, while lower in terms of cost, would not address the broader socio-economic fallout from the climate shocks and decarbonisation policies. As discussed, formal sector workers are just one group embedded within value chains of affected sectors. Other groups – outsourced, casualised, informal and unpaid workers – also derive a livelihood from activities linked to carbon-intensive industries. Targeted social protection measures alone cannot enable an economically or socially viable transition. These must be coupled with social protection measures to ensure universal coverage and comprehensive benefits. However, it is also important to note that social protection mechanisms on their own cannot guarantee a just transition in the face of the structural challenge of poverty, inequality and unemployment. These must work in tandem with broader policy reforms aimed at strengthening industrial

policy, skills formation systems, labour protections and investment in public services (Ramsarup et al., forthcoming). The fiscal framework to support such policies is vital.

Table 2: Comparison table of each policy option with advantages and disadvantages

Option	Advantages	Limitations
Universal Unemployment Grant	• Broad coverage of unemployed adults • Simple to administer (expands on SRD) • Strong poverty & inequality reduction • Boosts household demand • Supports informal and unpaid work	• Difficulty of identifying the unemployed • High fiscal cost • Insufficient to meet household's reproductive needs, depending on level and provision of other public services
Public Employment Programmes	• Adaptable and supports climate resilience • Existing programmes can be scaled up • Opportunities to engage in meaningful work • Could contribute to skills development • Could contribute to infrastructure needs and public services	• High admin cost (15%) • Implementation complexity • Not a long-term solution to unemployment
Just Transition Income Support	• Compensates workers directly affected by employment losses due to a cap on emissions • Low fiscal cost • Supports local economy, through aggregate demand	• Limited reach • Very difficult to identify beneficiaries • Pressure to expand scope • Ethical issues of targeting certain sectors • Does not support informal or unpaid work – i.e. does not support gender equity

The Financing Challenge

Convention 102 of the ILO mandates that governments must guarantee that citizens have access to social security, financed through a combination of employment-based contributions and public financing (ILO, 1952). One of the key principles of public financing for social protection is financial, fiscal and economic sustainability. Four criteria are especially important when evaluating financing options:

- **Progressivity:** do those with greater means contribute more?
- **Feasibility:** can resources be raised within political, financial and administrative constraints?
- **Sufficiency:** will adequate revenue be generated to meet obligations?
- **Sustainability:** are the sources of revenue predictable and stable over time, ensuring long-term viability?

Social insurance can be an important source of public financing for social security. However, the central weakness of South Africa's social protection system is the dominance of private asset management companies in the management of contributory social security funds. Because these funds are investment based and privately held, there is little opportunity for cross-subsidisation between workers and non-workers, with workers' deferred wages used to fuel capital accumulation rather than redistribution. The proposal for an NSSF aims to overcome this limitation by creating a public social security fund in South Africa. Until such a fund is established, however, expanding social protection will require generating additional public revenue through taxation.

Historically, corporate taxes have played a central role in public financing. However, global restructuring, deregulation and the rise of multinational corporations has weakened the power of nation states to mobilise resources to finance social policy, including social protection. Eager to attract foreign direct investment, states have steadily lowered corporate tax rates. The Organization for Economic Cooperation and Development (OECD) estimates that between 2000 and 2023, the average statutory corporate tax rate across the world declined from 28% to 21.1%, and South Africa has followed suit (OECD, 2023). The problem is compounded in the tech sectors, where governments often grant generous tax exemptions to incentivise research and development, driving effective tax rates even lower. Therefore, it is critical to reassess corporate taxation to ensure a fair contribution to the social wage.

Corporate income tax levels may influence investment decisions, but they are not the only factor. Furthermore, the forgone revenue from reduced corporate income tax further constrains public investment and social spending, and increases the fiscal deficit (Nel, 2023). The constraints on public investment are arguably detrimental to private investment too. Effective tax rates have decreased because of aggressive tax practices: "Tax aggressiveness encompasses both legal tax planning, (also referred to in the literature as tax avoidance) and illegal tax evasion" (Greeff, 2024). In South Africa, Greeff (2019) finds that firms with higher profitability have lower effective tax rates due to the ability to hire tax professionals who decrease their tax burdens.

The second challenge is that multinational corporations have been able to evade taxation by shifting their profits to low-tax jurisdictions. Tech companies in particular have been able to do this easily because returns on profit are tied to intangible assets that transcend national boundaries. However, even in traditional sectors, corporations have used illicit strategies such

as transfer pricing to avoid corporate taxes. According to the OECD, South Africa loses between \$3.5 and \$5 billion annually in illicit financial flows. Closing tax loopholes, recovering hidden assets and strengthening compliance are critical to curbing illicit financial flows. However, this requires political and cross-border cooperation (OECD, 2023).

A growing body of research is looking at how to effectively tax the digital economy (Castel-Branco et al., 2025) and points to several other innovative sources of financing in the digital economy. These include the reallocation of taxation rights to jurisdictions where goods are produced or consumed, rather than where companies are headquartered; the adoption of financial transaction taxes, which are fairly easy to implement through banking and trading systems; and robot taxes, which levy capital-intensive firms that adopt labour-replacing technologies. In the digital age, ensuring adequate contributions from capital, both corporate and private wealth, will require strengthening both national tax systems and regional/transnational collaboration. Ultimately, the combination of financing sources governments choose to pursue hinges on political bargains over the terms of production, distribution and redistribution (Mkandawire, 2001). By combining a progressive mix of revenue sources, they contend, government can ensure the fiscal sustainability of social protection resources.

The third challenge is the overreliance on indirect taxes, such VAT, which are administratively efficient to collect but generally considered regressive because VAT disproportionately affects low-income groups who spend a larger share of their income on consumption. While zero-rating basic consumption goods can mitigate the regressive effects, this process needs to be carefully managed (Valodia, 2025). Ultimately, the increasing popularity of VAT reflects a shift away from taxing capital accumulation towards taxing consumption.

Verwey (2025) has proposed several alternatives to VAT increases to finance social protection. These include increasing the marginal rates for higher income earners, which aligns with equity principles; levying a tax on net wealth for the richest individuals, which would tap into latent resources and contribute to redistributive justice; introduce a dedicated social security tax, earmarked for financing social protection; leverage the gold and foreign exchange contingency reserve account; and targeted borrowing, to bridge the financing gap in the short term while increasing revenues in the medium term. In addition, the IEJ has proposed several measures to finance the climate response fund, which in turn can support the added costs of social protection responses related to climate change and decarbonisation policies (Verwey, 2025). These

include a progressive carbon tax, a general fuel levy and mineral and petroleum royalties. The general fuel levy is already in effect, generating an estimated R93 billion in 2023/24 alone (Verwey, 2025). This consumption-based tax is relatively easy to collect and provides a stable source of revenue that could be ringfenced for the expansion of social protection. However, like VAT, fuel levies are regressive, and they can have inflationary effects. Therefore, for it to be progressive, the fuel levy must be coupled with public investment in essential services such as public transportation.

Conclusion

This paper presented a conceptual framework and costed plan for a comprehensive social protection system in support of a just transition. The approach compliments ongoing research by the PCC on tailored programmes for displaced workers in vulnerable sectors (see Bhorat et al., 2025). As discussed, the objective was not to present definitive policy prescriptions, but to explore potential pathways towards comprehensive social protection. The costing exercise examined three measures: a) targeted support for workers directly displaced by decarbonisation policies, b) universal income support for the unemployed and c) climate-responsive public employment programmes. For each measure, we estimated the fiscal implications under minimalist, moderate and maximalist scenarios.

As noted, the cost of social protection is likely to decrease over time as unemployment declines, provided that the jobs generated meet the standards for decent work (Rogan et al., forthcoming). According to the modelling by Rogan et al. (forthcoming), new jobs will be primarily driven by the services sector, including activities related to renewable energies, such as solar installation and maintenance. These are encouraging findings. After all, a dramatic reduction in unemployment would also reduce the pressure on the state to provide social protection, provided that the jobs created align with international standards for decent work. One of the key pillars of decent work is access to employment-based social security (ILO, 2007).

Ultimately, social protection must function in tandem with other social and economic policies, including labour protections. For instance, in the solar sector, there is a need for governments, labour unions and informal workers' organisations to play a more meaningful role in the regulation of the conditions of work in the emerging industries. Associations such as SAPVIA

represent the interests of company owners rather than workers. However, if solar energy is to offer employment conditions that allow for the expansion of employment-based social protection, it must move up the chain of value addition. The move to localise manufacturing of renewable energy technologies through the South African Renewable Energy Masterplan is important in this context. These must be coupled with a broader policy reform aimed at strengthening industrial policy, skills formation systems, labour protections and investment in public services (Ramsarup et al., forthcoming). As discussed, the fiscal framework to support such policies is crucial.

Bibliography

- Adesina, J.O. 2020. Policy merchandising and social assistance in Africa: Don't call dog monkey for me. *Development and Change* 51(2): 561–582. <https://doi.org/10.1111/dech.12569>
- Anderson, J. 2021. OPINION | A national social security fund is not the solution. *News24*, 20 August. <https://www.news24.com/business/opinion-a-national-social-security-fund-is-not-the-solution-20210820>
- Andersson, G. and Alexander, P. 2016. The Community Work Programme: Ppotentials and problems. *Transformation: Critical Perspectives on Southern Africa* 91(1): 157–177. <https://doi.org/10.1353/trn.2016.0022>
- Antonopoulos, R. and Kim, K. 2017. Public job guarantee programmes: The economic benefits of investing in social care. In I. Hirway (ed.) *Mainstreaming Unpaid Work*. Oxford University Press, 308–340. <https://doi.org/10.1093/acprof:oso/9780199468256.003.0009>
- Barchiesi, F. 2011. *Precarious liberation: Workers, the state, and contested social citizenship in postapartheid South Africa*. State University of New York Press (Sunny Series in Global Modernity). <https://books.google.nl/books?id=FDExjmlPJnIC>
- Bassier, I. and Budlender, J. 2024. *Stimulus effects of a large public employment programme*. Agence Francaise de Developpement.
- Bhattacharya, T. 2017. How not to skip class: Social reproduction of labor and the global working class. In T. Bhattacharya (ed.) *Social reproduction theory: Remapping class, recentring oppression*. London: Pluto Press.
- Bhorat, H., Monnakgotla, J., Sayed, A. and Steenkamp, F. 2025. *Ameliorating the Consequences of Coal Job Destruction: A Just Transition Policy Matrix Approach*. AFD Research Paper No. 376. https://www.afd.fr/sites/default/files/2025-10/pr376_web_v1_0.pdf
- Bhorat, H. and Köhler, T. 2025. The labour market effects of cash transfers to the unemployed: Evidence from South Africa. *World Development* 188: 106889. <https://doi.org/10.1016/j.worlddev.2024.106889>
- Bhorat, H., Kupeta, T., Martin, L. and Steenkamp, F. 2024. *Just transition and the labour market in South Africa: Measuring individual and household coal economy dependence*. Development Policy Research Unit. https://commerce.uct.ac.za/sites/default/files/media/documents/commerce_uct_ac_za/1093/dpru-wp202402.pdf
- Bhorat, H., Kohler, T. and Monnakgotla, J. 2024. *Social security coverage among the working-age population in South Africa*. 202404.

- Bhorat, H., Naidoo, K. and Pillay, K. 2016. Growth, poverty and inequality interactions in Africa: An overview of key issues. <https://doi.org/10.22004/ag.econ.267778>
- Buhlungu, S. and Webster, E. 2006. Work restructuring and the future of labour in South Africa. In *State of the Nation: South Africa 2005-2006*. Cape Town: HSRC Press.
- Business Tech. 2021. Proposed “social security fund” would cost South Africans an extra R2,750 a month in tax. *Business Tech*, 20 August. <https://businesstech.co.za/news/wealth/514622/proposed-social-security-fund-would-cost-south-africans-an-extra-r2750-a-month-in-tax/>
- Calligaro, F. and Cetrangolo, O. 2023. *Financing Universal Social Protection: The Relevance and Labour Market Impacts of Social Security Contributions*. WIEGO Working Paper No. 47. <https://www.wiego.org/sites/default/files/publications/file/wiego-working-paper-no47.pdf>.
- Cardoso, D., Carvalho, L., Tadeu Lima, G., Nassif-Pires, L., Rugitsky, F. and Sanches, M. 2025. The multiplier effects of government expenditures on social protection: A multi-country study. *Development and Change* 56(1): 172–224. <https://doi.org/10.1111/dech.12869>
- Castel-Branco, R., Cook, S., Ewinyu, A. K. and Madonko, T. 2025. *Rethinking Social Security Financing in the Shadow of the Digital Age: A View from the Global South*. 73. Southern Centre for Inequality Studies, Wits University.
- Castel-Branco, R. and Pons-Vignon, N. 2025. Size matters: Universal basic income as a strategy for decent work. In *The Elgar Companion to Decent Work and the Sustainable Development Goals*. Edward Elgar Publishing, 627–637.
- Cerise, S., Cook, S., Lehmann-Grube, K., Taylor, J. and Valodia, I. 2024. *Towards a gender just transition: Principles and perspectives from the global South*. 68. Southern Centre for Inequality Studies, Wits University.
- Chen, M. 2012. *The informal economy: Definitions, theories and policies*. <https://research.hks.harvard.edu/publications/digest/citation.aspx?PubId=8856&type=AA&LookupCode=>
- COSATU. 2022. *COSATU Just Transition Blueprint for Workers*. <http://mediadon.co.za/wp-content/uploads/2022/04/COSATU-Just-Transition-Blueprint-Full-version.pdf>
- Costella, C., van Aalst, M., Georgiadou, Y., Slater, R., Reilly, R., McCord, A., Holmes, R., Ammoun, J., and Barca, V. 2023. Can social protection tackle emerging risks from climate change, and how? A framework and a critical review. *Climate Risk Management* 40: 100501. <https://doi.org/10.1016/j.crm.2023.100501>
- Department of Employment and Labour. 2025. *National Minimum Wage*. <https://www.labour.gov.za/DocumentCenter/Publications/Basic%20Conditions%20of%20Employment/National%20Minimum%20Wage%20flyer%202025.pdf>.

- Department of Health. n.d. *Understanding National Health Insurance*. Department of Health. <https://www.hst.org.za/publications/NonHST%20Publications/Booklet%20-%20Understanding%20National%20Health%20Insurance.pdf>.
- Department of Social Development (DSD). 2021a. *Department of Social Development withdraws the green paper on comprehensive social security and retirement reforms*. 1 September. <https://www.dsd.gov.za/index.php/21-latest-news/392-department-of-social-development-withdraws-the-green-paper-on-comprehensive-social-security-and-retirement-reforms>.
- Department of Social Development (DSD). 2021b. Green paper on comprehensive social security and retirement reform. *Government Gazette* [Preprint]: 45006.
- Devereux, S. and Sabates-Wheeler, R. 2015. Graduating from social protection? Editorial introduction. *IDS Bulletin*, 46(2): 1–12. <https://doi.org/10.1111/1759-5436.12124>
- Ding, J. and Hirvilammi, T. 2024. Three pillars of just transition labour market policies. *Contemporary Social Science* 19(1–3): 244–261. <https://doi.org/10.1080/21582041.2024.2316656>
- DSD, SASSA and UNICEF. 2021. *Analysis of the implementation of the special Covid-19 social relief of distress grant*. Pretoria: UNICEF South Africa. <https://www.unicef.org/southafrica/reports/analysis-implementation-covid-19-srd-grant>
- Esping-Andersen, G. 1990. *The Three Worlds of Welfare Capitalism*. John Wiley & Sons.
- Expert Panel on Basic Income Support. 2021. *Report into the appropriateness and feasibility of a system of Basic Income Support for South Africa: A report produced under the supervision of the International Labour Organisation for the Department of Social Development and the South African Government*. Department of Social Development, Republic of South Africa.
- Federici, S. 2004. *Caliban and the witch: Women, the body and primitive accumulation*. New York, NY: Autonomedia.
- Fine, B. 2014. The continuing enigmas of social policy. In *Towards universal health care in emerging economies: Opportunities and challenges* (pp. 29-59). London: Palgrave Macmillan UK.
- Fouksman, E. and Dawson, H.J. 2023. Redistributive politics and the temporalities of crisis: Reconfiguring social protection in a post-pandemic South Africa. *Global Social Policy*: 14680181231201493. <https://doi.org/10.1177/14680181231201493>
- Greeff, C. 2019. Corporate effective tax rates: An exploratory study of South African listed firms. *South African Journal of Accounting Research* 33(2): 99–113. <https://doi.org/10.1080/10291954.2019.1638589>

- Greeff, C. 2024. Determinants of the effective tax rate: Board composition of South African firms listed on the Johannesburg Stock Exchange. *South African Journal of Accounting Research* 39(1): 27–49. <https://doi.org/10.1080/10291954.2024.2334141>
- Gronbach, L., Seekings, J. and Megannan, V. 2022. *Social protection in the COVID-19 pandemic: Lessons from South Africa*. Center for Global Development Policy Paper, 252.
- Guthrie, T. 2002. Transforming the Present – Protecting the Future – Committee of Inquiry into a Comprehensive Social Security System. *MCH News* [Preprint] (18).
- Hujo, K. and McClanahan, S. 2009. *Financing Social Policy: Mobilizing Resources for Social Development*. Springer.
- IASS, IET and CSIR. 2022. *From coal to renewables in Mpumalanga: Employment effects, opportunities for local value creation, skills requirements, and gender-inclusiveness. Assessing the co-benefits of decarbonising South Africa's power sector. COBENEFITS Executive Report*. Potsdam and Pretoria.
- IDC. 2024. Social Employment Fund wins for urban transformation efforts. *Daily Maverick*, 13 October. <https://www.dailymaverick.co.za/article/2024-10-13-social-employment-fund-wins-global-award-for-urban-transformation-efforts/>
- International Labour Organization (ILO). 1952. *C102 – Social Security (Minimum Standards) Convention, 1952 (No. 102)*. International Labour Organization. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_IL_O_CODE:C102.
- International Labour Organization (ILO). 2007. *Decent Work Agenda for Africa 2007–2015*. Eleventh African Regional Meeting-Report of the Director-General. Addis Ababa, Geneva: ILO, 76.
- International Labour Organization (ILO). 2012. *Recommendation R202 – Social Protection Floors Recommendation, 2012 (No. 202)*. https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_IL_O_CODE:R202 (Accessed: 11 June 2019).
- International Labour Organization (ILO). 2016. *Social protection in public works programmes: Building resilience of poor and vulnerable households*. Geneva: ILO. https://www.ilo.org/global/topics/employment-intensive/publications/WCMS_605771/lang--en/index.htm (Accessed: 23 June 2025).
- International Labour Organization (ILO). 2017. *World social protection report 2017–19: Universal social protection to achieve the SDGs*. Geneva: International Labour Organization. https://www.ilo.org/global/publications/books/WCMS_604882/lang--en/index.htm
- International Labour Organization (ILO). 2023. *Just Transition Policy Brief: Social protection for a just transition*.

- International Labour Organization (ILO). 2024. *World Social Protection Report 2024-26: Universal Social Protection for Climate Action and a Just Transition*. Geneva: International Labour Organization. <https://www.ilo.org/publications/flagship-reports/world-social-protection-report-2024-26-universal-social-protection-climate>
- International Monetary Fund (IMF). 2025. *World economic outlook: A critical juncture amid policy shifts*. April. Washington, DC: International Monetary Fund. <https://www.imf.org/Publications/WEO/Issues/2025/04/22/world-economic-outlook-april-2025> (Accessed: 16 June 2025).
- Jehoma, S. and Guarnieri, E. 2016. Universalisation of the Child Support Grant. In *South African Child Gauge*, 80–83.
- Jones, L., Jaspars, S., Pavanello, S., Ludi, E., Slater, R., Arnall, A., Grist, N. and Mtisi, S. 2010. Working Paper 319 – Responding to a changing climate: Exploring how disaster risk reduction, social protection and livelihoods approaches promote features of adaptive capacity. Overseas Development Institute.
- Lombardozi, L. and Pitts, F.H. 2020. Social form, social reproduction and social policy: Basic income, basic services, basic infrastructure. *Capital & Class* 44(4): 573-594. <https://doi.org/10.1177/0309816819873323>.
- Makgetla, N., Montmasson-Clair, G., Patel, M., and Maseko, N. 2019. *National employment vulnerability assessment: Analysis of potential climate-change related impacts and vulnerable groups*. TIPS. <https://www.tips.org.za/just-transition/item/4084-national-employment-vulnerability-assessment-analysis-of-potential-climate-change-related-impacts-and-vulnerable-groups>.
- Malerba, D. 2021. Climate change and social protection. In E. Schüring and M. Loewe (eds). *Handbook on Social Protection Systems*. Edward Elgar Publishing.
- Marais, E.A., Silvern, R., Vodonos, A., Dupin, E., Bockarie, Al., Mickley, L. and Schwartz, J. 2019. Air quality and health impact of future fossil fuel use for electricity generation and transport in Africa. *Environmental Science & Technology* 53(22): 13524–13534. <https://doi.org/10.1021/acs.est.9b04958>.
- McCord, A. and Slater, R. 2015. Social protection and graduation through sustainable employment. *IDS Bulletin* 46(2): 134–144. <https://doi.org/10.1111/1759-5436.12136>.
- Merven, B., Hartley, F., Marquard, A., Ahjum, F., Burton, J., Hughes, A., Ireland, G., McCall, B. and Schers, J. 2021. *Climate mitigation in South Africa*. #174. IFPRI.
- Merven, B., Hughes, A., Hartley, F., Marquard, A., and Ranchhod, V. 2023. *Estimating the economy-wide and redistributive impacts of mitigation in South Africa*. 10. Cape Town: Transforming Social Inequalities Through Inclusive Climate Action (TSITICA). https://tsitica.uct.ac.za/sites/default/files/media/documents/tsitica_uct_ac_za/2171/10-estimating-the-economy-wide-and-redistributive-impacts-of-mitigation-in-sa-june-2023.pdf.
- Mkandawire, T. 2001. *Social Policy in a Development Context*. UNRISD.

- Mkandawire, T. 2011. Welfare Regimes and Economic Development: Bridging the Conceptual Gap. In *Overcoming the Persistence of Inequality and Poverty*. Palgrave Macmillan UK. https://doi.org/10.1057/9780230306721_7
- Mkhwanazi, T. 2024. Assessing the National Health Insurance (NHI) in South Africa: Policy formulation, stakeholder engagement and implementation challenges. *European Journal of Medical and Health Research* 2(6): 198–215. [https://doi.org/10.59324/ejmhr.2024.2\(6\).27](https://doi.org/10.59324/ejmhr.2024.2(6).27)
- Mokoena, S. 2025. Finance minister announces budget allocations for employment of doctors, teachers and expansion of ECD programme – Parliament of South Africa. *South African Parliament News*, 21 May. <https://www.parliament.gov.za/news/finance-minister-announces-budget-allocations-employment-doctors-teachers-and-expansion-ecd-programme> (Accessed: 15 July 2025).
- Mosoetsa, S. 2011. *Eating from one pot: The dynamics of survival in poor South African households*. Wits University Press.
- Mubangizi, B. C. and Dladla L. G. 2024. Participants’ perceptions of the contribution of the expanded public works programme to sustainable livelihoods. *Journal of Social Sciences* 7(2): 118-132. [https://doi.org/10.52326/jss.utm.2024.7\(2\).10](https://doi.org/10.52326/jss.utm.2024.7(2).10)
- National Business Initiative (NBI). 2024. *Powering futures: The green skilling opportunity*. National Business Initiative. <https://www.nbi.org.za/wp-content/uploads/2024/11/JET-SEP-Powering-Futures-Report.pdf>.
- National Treasury. 2011. *EPWP Phase 2: Mid-term review*. Pretoria: Republic of South Africa. https://www.treasury.gov.za/publications/other/epwp_review.pdf (Accessed: 23 June 2025).
- National Treasury. 2025. *Budget Overview 2025*. Pretoria: National Treasury. <https://www.treasury.gov.za/documents/National%20Budget/2025May/review/May%202025%20Budget%20Overview.pdf>
- Nel, R. 2023. *An exploratory study of a corporate tax rate reduction and the encouragement of investments in shares in South Africa*. Conference Paper – International Business Conference.
- Neves, D., Samson, M., van Niekerk, I., Hlatshwayo, S. and du Toit, A. 2009. *The use and effectiveness of social grants in South Africa*. Cape Town: FinMark Trust. <https://www.finmark.org.za/resource/the-use-and-effectiveness-of-social-grants-in-south-africa>
- Organization for Economic Cooperation and Development (OECD). 2023. *Pensions at a Glance 2023: OECD and G20 Indicators*. Paris: OECD Publishing. <https://doi.org/10.1787/678055dd-en>
- Oyèwùmí, O., 1997. *The invention of women: Making an African sense of western gender discourses*. University of Minnesota Press.

- Philip, K. 2012. The rationale for an employment guarantee in South Africa. *Development Southern Africa* 29(1): 177–190. <https://doi.org/10.1080/0376835X.2012.645650>.
- Presidential Climate Commission (PCC). 2022. *A Framework for a Just Transition in South Africa*. Presidential Climate Commission.
- Presidential Employment Stimulus (PES). 2024. *The Presidential Employment Stimulus: Building a society that works. 1,7 million jobs, opportunities and more*. The Presidency of the Republic of South Africa.
- Ramsarup, P., Lotz-Sisitka, H., Hepplethwaite, V. and Van Heerden, S. (forthcoming). *Strengthening Skills for a Just Transition: Recommendations to Support Collaboration*. Presidential Climate Commission.
- Republic of South Africa (RSA). 2019. National Minimum Wage Act. https://www.gov.za/sites/default/files/gcis_document/202112/45649gon1616.pdf (Accessed: 25 May 2025).
- Republic of South Africa (RSA). 2021. *South Africa: First nationally determined contribution under the Paris Agreement*. <https://unfccc.int/sites/default/files/NDC/2022-06/South%20Africa%20updated%20first%20NDC%20September%202021.pdf>.
- Republic of South Africa (RSA). 2025. Case Number: 071891/2023. High Court of South Africa, Gauteng Division. https://iej.org.za/wp-content/uploads/2025/01/IEJ_Social-Relief-of-Distress-Grants_HC-judgment.pdf.
- Rogan, M., Oyenubi, A., Francis, D. and Nel, V. (forthcoming). *Understanding the future labour market: A microsimulation and distributive analysis*. Presidential Climate Commission.
- Sachs, M., Amra, R., Madonko, T. and Willcox, O. 2023. Austerity without consolidation: Fiscal policy and spending choices in budget 2023. Southern Centre for Inequality Studies.
- SASSA. 2023. *Annual Report 2022/23*. Pretoria: South African Social Security Agency. <https://www.sassa.gov.za> (Accessed: 25 June 2025).
- Schmitt, C., Lierse, H. and Obinger, H. 2020. Funding Social Protection: Mapping and Explaining Welfare State Financing in a Global Perspective. *Global Social Policy* 20(2): 143–64.
- Schütz, E. 2024. South Africa's new national health insurance scheme is controversial. *BMJ*,: q1506. <https://doi.org/10.1136/bmj.q1506>
- Scully, B. and Moyo, T. 2022. Constructing conflict: The politics of job creation policy, precarious work, and citizenship in South Africa's construction industry. *Critical Sociology* 48(3): 459–473. <https://doi.org/10.1177/08969205211035560>

- Scully, B. and Webster, E. 2019. The countryside and capitalism: Rethinking the cheap labour thesis in post-apartheid South Africa. In *Race, Class, and the Post-Apartheid Democratic State*. Durban: University of KwaZulu-Natal Press.
- Seekings, J. 2008. Welfare Regimes and Redistribution in the South. In *Divide and Deal the Politics of Distribution in Democracies*. New York and London: New York University Press.
- Sefalafala, T. 2024. Beyond the income: The normative effects of unemployment in the goldfields of Welkom, Free State, South Africa. *South African Review of Sociology* 54(1): 23–41. <https://doi.org/10.1080/21528586.2024.2316000>
- Sefalafala, T., Castel-Branco, R. and Malabela, M. 2023. Technological innovation, the changing nature of work and the implications for trade unionism in post-apartheid South Africa. In *The Evolving Structure of South Africa's Economy*. Johannesburg: MISTRA.
- Shandu, S., Mathandela, B. and Tenyane, M. 2022. *NEDLAC Expanded Public Works Programme Report*. Johannesburg: NEDLAC and BMS Capital. <https://nedlac.org.za/wp-content/uploads/2022/06/epwp-nedlac-report-may-2022-final.pdf>
- Stats SA. 2024. *National Poverty Lines*. P0310.1. Stats SA. <https://www.statssa.gov.za/publications/P03101/P031012024.pdf>.
- Stats SA. 2025. *Quarterly Labour Force Survey: Quarter 1: 2025*. Stats SA. <https://www.statssa.gov.za/publications/P02111/P02111stQuarter2025.pdf>
- Stewart, F. 2020. *South Africa: Financial sector assessment program*. Technical note: Pension System 2020. World Bank.
- Traoré, O. and Tetka, J.B. 2025. The health and health insurance implications of climate change in sub-Saharan Africa: A narrative review. *Public Health Reviews* 45: 1607212. <https://doi.org/10.3389/phrs.2024.1607212>
- United Nations Department of Economic and Social Affairs (UN DESA) Population Division. (2024). *World population prospects 2024: Summary of results*. New York: United Nations. <https://population.un.org/wpp/> (Accessed: 16 June 2025).
- United Nations Development Programme (UNDP). 2021. *Feasibility study on universal basic income in South Africa*. Johannesburg: United Nations Development Programme South Africa. <https://www.undp.org/south-africa/publications/ubi-feasibility-study> (Accessed: 25 June 2025).
- Universal Basic Income Coalition (UBIC). 2023. *Universal basic income coalition position paper*.
- Valodia, I. 2025. Fact and Fiction - A comment on the 2025-6 Budget. Wits University.

- Van Daalen, K., Jung, L., Dhatt, R., and Phelan, A. 2020. Climate change and gender-based health disparities. *The Lancet Planetary Health* 4(2): e44–e45. [https://doi.org/10.1016/S2542-5196\(20\)30001-2](https://doi.org/10.1016/S2542-5196(20)30001-2)
- Van den Heever, A. 2022. Social security and social protection in South Africa. In M. Qobo, M. Soko and N. Xenia Ngwenya (eds). *The future of the South African political economy post-COVID 19*. Cham: Springer International Publishing, 151–176. https://doi.org/10.1007/978-3-031-10576-0_7.
- Verwey, L. 2025. *Assertive Fiscal Policy in an Equitable and Worker-Centric Climate Response*. Institute for Economic Justice.
- Vlok, E. 1998. Jobs and houses: The jobs summit. *SA Labour Bulletin* 22(6). https://www.southafricanlabourbulletin.org.za/wp-content/uploads/2021/11/Jobs-and-houses.-the-jobs-summit-by-Etienne-Vlok_0.pdf
- Vogel, L. 1983. *Marxism and the oppression of women: Toward a unitary theory*. Reprint edition. Chicago, IL: Haymarket Books.
- Webster, E. and Francis, D. 2019. The paradox of inequality in South Africa: a challenge from the workplace. *Transformation* 101: 11–35. <https://doi.org/10.1353/trn.2019.0035>
- Wiltshire, A.H. 2016. The meanings of work in a public work scheme in South Africa. *The International Journal of Sociology and Social Policy* 36(1/2): 2–17. <http://0-dx.doi.org.innopac.wits.ac.za/10.1108/IJSSP-02-2015-0014>
- Wood, G. and Gough, I. 2006. A comparative welfare regime approach to global social policy. *World Development* 34(10): 1969–1712.
- World Bank. 2015. *Public works as a safety net: Design, evidence, and implementation*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/22593> (Accessed: 23 June 2025).
- World Bank. 2018. *The state of social safety nets 2018*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/29115> (Accessed: 25 June 2025).
- World Bank. 2019. *World Development Report 2019: The Changing Nature of Work*. World Bank. <https://www.worldbank.org/en/publication/wdr2019>
- World Bank. 2022. *Making Pension Savings Easy and Efficient for Informal Sector Workers: Learning from Kenya's Haba Haba Pilot*. World Bank Group.
- Wright, C.Y., Chersich, M. and Mathee, A. 2019. National Health Insurance and climate change: Planning for South Africa's future. *South African Journal of Science* 115(9/10). <https://doi.org/10.17159/sajs.2019/5800>



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