## AN ANALYSIS OF JUST ENERGY TRANSITIONS AND SOCIAL SECURITY IN SOUTH AFRICA



INITIATIVE



## TABLE OF CONTENTS

OUTLINE	IV
1. INTRODUCTION - THEORETICAL CONCEPTUAL FRAMEWORK: DEFINING CONCEPTS	1
2. RESEARCH QUESTION & METHODOLOGY	3
3. LITERATURE REVIEW	4
3.1. JUST ENERGY TRANSITIONS: GLOBAL POLITICAL DISCOURSES	5
3.2. CLIMATE CHANGE AND GREEN GROWTH	7
3.3. JUST TRANSITIONS AND ENERGY JUSTICE	7
3.4. THE INTERNATIONAL CONTEXT: JUST TRANSITIONS	8
3.5. CASE STUDY: GERMANY'S EXPERIENCE	ς
OF GREEN INDUSTRIAL POLICIES AND IMPLEMENTATION	10
3.6. SEVEN PRINCIPLES OF JUST TRANSITIONS	14
3.7. THE JUST ENERGY TRANSITION, LABOUR AND POVERTY IN SOUTH AFRICA	20
3.8. THE NATIONAL DEVELOPMENT PLAN (NDP)	21
3.9. COAL-MINING IN SOUTH AFRICA,	
AN INDUSTRY THAT NEEDS RENEGOTIATION	23
3.10. LABOUR ON A JUST TRANSITION IN SOUTH AFRICA	25

3.11. SOCIAL SECURITY IN SOUTH AFRICA	
3.12. OVERVIEW OF SOUTH AFRICA'S SOCIAL SECURITY PROGRAMMES	31
3.13. A BASIC INCOME GRANT: A POSSIBLE GAME CHANGER	32
3.14. SOCIAL SECURITY AND JUST TRANSITIONS	33
3.15. EXAMPLES OF SOCIAL PROTECTION POLICIES IN SELECTED COUNTRIES CONTRIBUTING TO A JUST TRANSITION	35
INTERVIEWS:	36
4.1. ON THE IMPORTANCE OF SOCIAL SECURITY IN SOUTH AFRICA	36
4.2. ON THE MEANINGS OF JUST TRANSITIONS	38
4.3. ON THE CHALLENGES WITH PROCEED	ING
WITH A JUST TRANSITION IN SOUTH AFRICA	40
4.4. ON HOW SOCIAL SECURITY COULD ENABLE A JUST TRANSITION	41
4.5. ON VISIONS FOR A JUST TRANSITION I SOUTH AFRICA	N 43
CONCLUSIONS & RECCOMENDATIONS	44
REFERENCES	45

ISBN:

978-0-6397-6006-3

PUBLISHER:

Social Policy Initiative

**EXECUTIVE DIRECTOR:** 

Isobel Frye

AUTHOR:

ALEXANDRA WILLIS **DESIGNER:** Christopher

Vermeulen

87 De Korte Street, South Point Corner,

Office 401,

Braamfontein,

Johannesburg, 2001.

t. +27 11 833 0161

isobel@spi.net.za

 $\underline{T}$  facebook.com/SPI

↑ instagram.com/spi\_za/

<u>twitter.com/SPI\_OfficialZA</u>



### OUTLINE

The world is facing two major distinct but intersecting crises: (i) climate change and (ii)poverty and inequality. Climate change is upon us as a result of ecological collapse caused by human behaviour<sup>1</sup>. Through its sixth and latest assessment cycle repor t(AR6), the Intergovernmental Panel on Climate Change (IPCC) has established that the human influence on our climate has been unequivocal, the scale of these changes is unprecedented and many of these changes are irreversible.2 The AR6 also, for the first time, includes the centrality of human beings in potentiasl mitigation, and stresses that mitigation and adaptation need to be at the forefront of national development and, correspondingly that human wellbeing must be at the core of the processes of mitigation and adaptation. Moereover, widespread poverty and inequality have created a socio-economic crisis.3 There is unanimous agreement globally that to mitigate human impact on the environment and the effect on the global carbon cycle, it is necessary to change human beings' dependency on fossil-fuel by decarbonising the energy supply.4 In other words, it is necessary to turn to renewable energy sources. There is, however, concern that the necessary steps to make such a transition in mitigating the first global crisis will exacerbate the second because of consequential job losses in the existing social structure of energy generation.5 Transitioning to renewable energy generation will undoubtedly disrupt the

labour market for the reason that the new energy portfolio would require a different set of resources and skills from that which currently apply.<sup>6</sup>

This paper assesses the linkages between social security and climate adaptation strategies in South Africa. It assesses some of the local challenges with transitioning and draws on insights from experts on new thinking around how an energy transition in South Africa could indeed be a "just" one. South Africa is beginning to embark on an energy transition as set out by the conditions of the 2021 United Nations Climate Change Conference (more commonly referred to as COP26) loan.7 The South African context is a complex one because the country not only has great poverty but also is deeply unequal. In South Africa, which has a real unemployment rate of 44,1%8 (under the expanded definition of unemployment), it is necessary to build a social protection floor as a precondition for a "just transition". One of the major concerns in the South African context is the potential loss of employment and livelihoods because of various low-carbon and digital economy policy interventions.9 This will exacerbate the pre-existing crisisand can only deepen anxieties and vulnerabilities arising from structural unemployment and poverty. In 2022, the World Bank observed that South Africa is the most unequal country in the world, ranking first among 164 countries within the Bank's global poverty database with a pre-Covid 19 consumption per capita Gini coefficient of 67 in 2018.<sup>10</sup> The country is also in the midst of an energy crisis owing, in part, to alleged mismanagement and corruption of its power supplier Eskom, which post-apartheid South Africa was required to provide electricity for all and not just a few.

Almost all of South Africa's energy supply is derived from coal-fired power plants. <sup>11</sup>South Africa's emission intensity (emissions per unit of output) in 2018 was 2.5 times the global average, about five times higher than in the US. Four-fifths of emissions are attributable to energy supply and use.12 Trade unions are aware of the high levels of pollution are caused by coal-derived energy but are demanding that a plan should be put in place for an energy mix that will extend the life of the coal mines to 2030.13 South Africa is a signatory to the Paris Agreement adopted at CoP21, thus committing itself to a process of transforming its dependence on coal toward renewable sources, particularly wind and solar technologies.14 The degree to which this transition will create and/or displace jobs is presently unclear.15 Neverthless, the need for policy-makers to embrace the social aspect of adaptation is what is driving the UN IPCC AR6 process, which is currently underway. The recent report "Climate Change 2022: Impacts, Adaptation and Vulnerability" published by the Intergovernmental Panel on Climate Change (IPCC) is instructive insofar as it contends that unless action is taken decisively, environmental issues will exacerbate inequality, poverty and unemployment.

Effective social security provides developmental pathways out of poverty and which reduces vulnerability and mitigates risk,<sup>16</sup> Social security prevents people from falling

deeper into poverty or becoming vulnerable to those risks and contingencies that arise arising from natural disasters and other consequences of climate change. The most effective measure of reducing poverty in South Africa has been social grants, a form of social security. Larger incomes circulating among poor communities are likely to provide a major boost to the informal sector. This paper assesses global experiences of how social security reduces anxieties about "just transitions" and job insecurity and how adaptive manufacturing has been able to develop replacement sectors for fossil-fuel jobs, while examining the particular economic context of South Africa and its political framework and policies.

In his speech to the nation on the immediate national electricity shortage crisis, President Cyril Ramaphosa, on 25 July, 2022, announced long term and short measures to achieve energy security with an emphasis on renewables.<sup>18</sup>



# INTRODUCTION THEORETICAL CONCEPTUAL FRAMEWORK: DEFINING CONCEPTS

"Social security" - The concept of social security is sometimes used synonymously with "social protection." We do not, however, use these terms interchangeably. Social protection refers to "a set of contributory and non-contributory programmes providing income security and access to health care, to those covered, in the event of certain life contingencies and social risks". <sup>19</sup> Social security, according to our definition, does not include access to healthcare but refers to income security schemes in the form of either contributory programss or non-contributory programs.

On the table for discussion in South Africa is a proposal for a Universal Basic Income Grant (UBIG), with massive contestations as to where the money will come from. According to research undertaken by SPI, there are eight financing options for a UBIG. The debate is around policy reform for universal basic income (i.e. administered to everyone) which would do well to lift people out of poverty and give people hitherto barred from economic activity access to the economy. This paper argues that a a UBIG would also go far to improve gender equality where women in South Africa are already critically vulnerable economically. A UBIG would assist in the reduction of women's vulnerability and build resilience.

"Just transition" is a concept that emerged in the 1990s trade union movement in the US to describe support for workers who lost their jobs due to environmental protection policies.<sup>20</sup> According to Young (1998), a "just transition" refers to "an enlightened new approach[to the problem of resultant job losses of environmental protection policy and action] [which] recognis[es] that jobs would 'be lost in the transition to globalisation and environmental sustainability' and propose[s] that workers and communities who would be negatively impacted due to trade agreements and the ban or phase-out of toxic substances should suffer no net loss of income."

"Green Transition" refers to the transitioning from coal-dependent energy production to eco-friendly production as it pertains to other concepts namely "green growth,", the "green jobs", "green economy" &...

"Green jobs" are defined as follows: jobs which reduce the consumption of energy and raw materials, limit greenhouse gas emissions, minimize waste and pollution, protect and restore ecosystems and enable enterprises and communities to adapt to climate change"". A significant proportion of literature on "green jobs" focuses on defining such jobs as "decent". This paper neverthless excludes this for it is beyond its scope.

"Mitigation" in relation to the concept and reality of climate change, means "avoiding and reducing emissions of heat-trapping greenhouse gases into the atmosphere to prevent the planet from warming to more extreme temperatures."<sup>22</sup>

"Adaptation" defined by the IPCC in human systems terms, refers to "the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities." In natural systems terms, adaptation refers to "the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate and its effects." An example of an adaptation measure is raising the foundations of waterfront or flood-vulnerable buildings.

#### Aim and objectives

The aim of this research paper is to assess how climate mitigation and adaptation policies will aggravate actual and/or perceived anxieties about job losses and how universal social security schemes can provide one way to alleviate these actual or perceived anxieties through a planned transition phase.



## 2. RESEARCH QUESTION SHETHODOLOGY KHAYA LABANTU

The research question is:

How can a universal social security policy framework in South Africa move green transitioning to a just transition?

This paper begins with a review of global literature on the topic, as well as regional and local work done to date. This frames the question of how social security might be used as a vital pillar for local mitigation strategies for people and communities directly affected by mitigation and adaptive policies, including the closing of coal mines and the impact on jobs across the value-chain. The feasibility of using social security cash grants, together with active labour market programs, including reskilling given international lessons, will be important, and lessons on optimal policy design (conditions and their enforcement), as well as literature on the impact of cash grants and social security on behavioural change have been considered. Following the literature review (section one), framing literature review of global articles and papers, section two sets out possible ways forward as to the insights that may be gleaned from key informant interviews with experts in the fields. The the final section will motivate upon our findings.. The paper will traverse new thinking on green re-industrialisation of South Africa and how this can be located upon a foundation of decent social security both for typical and atypical work.





There is a plethora of international literature assessing global climate policies, strengthened mitigation actions in developing countries, sustained reductions in greenhouse gas (GHG) emissions in some developed countries, and the present challenges for mitigation. A large body of international literature weighs in on the UN Framework Convention on Climate 11 Change (UNFCCC), the outcomes of its Kyoto Protocol and the goals of the Paris Agreement, and the UN 2030 Agenda for Sustainable Development. Climate action may be conceptualised as an intersectional issue in the United Nation's 2030 Sustainable Development Goals, inasmuch as t several of the other goals such as ending poverty (Goal 1), zero hunger (Goal 2), good health and wellbeing (Goal 3), affordable and clean energy (Goal 7) among many others are related to climate change. An important feature of the evolving international climate policy landscape of the recent years is the entrepreneurship of UN agencies such as United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP) as well as international organizations such as the World Bank in initiating public-private partnerships (PPPs).

1. Literature on climate change mitigation, framed in the context of sustainable development and poverty eradication, is the springboard for this paper. In South Africa, there is much that has been written about labour impacts for "going green" and climate policies. Little, however, has been written about how social security or a social protection floor could alleviate some of the anxieties around existing and potential job losses resultant from "going green" green. This review pulls together the literature on these two separate issues and links them together.



## 3.1. JUST ENERGY TRANSITIONS: GLOBAL POLITICAL DISCOURSES

In the literature that has been reviewed, "just transition" is sometimes explicitly delineated as "just energy transition" and in other instances the word "energy" is implicit. It is at the intersection between energy transitions and socioeconomic concerns that the concept of "just transitions" emerges.28 Ideas of a "Just Transition" often have a national focus in the literature and hold the position that mitigation should not increase the range between rich and poor countries but rather advocate for transitions which seek reduce -or at least avoid adverse -distributional affects. According to Mulaisi and Mabasa (2022), a just transition to a low-carbon economy hinges on the ability to develop adequate regulatory measures that address market failures and externalities that accompany economic restructuring processes.29

As has been mentioned above, the concept of "just transition" arose in the 1990s in the USA. It derivedfrom the critical engagement between a conservative labour movement focused on preserving jobs and the more radical environmental justice movement campaigning against the exposure of predominantly Black and Hispanic Americans to environmental pollution and risk.<sup>30</sup> At the time, the Oil, Chemical and Atomic Workers Union in the US were responding

to the increasing environmental pressure on existing businesses in their sector. The union was aware that the workers "were being forced to side with greedy and polluting companies to protect their jobs."31. Rather than continue to place themselves in opposition to global aspirations for sustainable development, which emerged in the 1990s in response to emerging knowledge about climate change, labour and environmental justice, activists worked to ensure that workers and communities that would be negatively impacted due to trade agreements, and the ban or phase-out of toxic substances, should suffer no net loss of income.<sup>32</sup> Therein emerged the concept of "just transition" which, as stated in the introductory section of this paper, is associated with the two distinct but intersecting crises of climate change and widespread poverty and inequality.

According to Garcia *et al* (2020) "just transitions" has three conceptual layers.<sup>33</sup>. In the first layer, there is the idea of a socio-ecological transition. A second layer is the concept of energy transition. In the third and last layer, a the concept of "just energy transition", arises as "one of the diverse possibilities of shaping an energy transition."<sup>34</sup> In the first layer, the concept alludes to a process of shifting from existing so-

cio-ecological regimes to more sustainable regimes.<sup>35</sup> In the second layer, the concept implies a process of shift "that affects the generation, distribution, storage and use of energy" and causes rearrangements in policies, economies and societies."36 In the third layer, the concept of "just transition" adds the concerns of justice and equity to the previous one.37 With these three layers in mind, we arrive at a working definition of a "just transition" as "an enlightened new approach [to the problem of resultant job losses of environmental protection policy and action] [which] recognis[es] that jobs would 'be lost in the transition to globalisation and environmental sustainability' and propose[s] that workers and communities who would be negatively impacted due to trade agreements and the ban or phaseout of toxic substances should suffer no net loss of income."38By extension, a "just energy transition towards a low carbon economy" can be defined as "a long-term technological and socio-economic process of structural shift"39 that affects the generation, distribution, storage and use of energy"40 and "causes rearrangements at micro (innovation), meso (social networks, rules and technical elements) and macro (exogenous environment) levels, while also ensuring that the desired socioeconomic functions can be accomplished through decarbonised and renewable means of energy production and consumption, safeguarding social justice, equity and welfare."41 Substantive trade union and community organisation participation in decarbonisation processes has been identified as a key component in reducing the adverse socioeconomic impacts of decarbonisation.42 The discourse of just transitions is politically loaded as a "complex policy-led process with time goals."43



## 3.2. CLIMATE CHANGE AND GREEN GROWTH

By the early 2000s, climate change was becoming an urgent global issue and many of the ideas that had been developed within the environmental justice movement had carried through into the work on climate justice.<sup>44</sup> Current global discourse on 'gren growth, the "green economy" and "green jobs" has developed from the 2008 global financial crisis and its resultant job losses". This has occurred in tandem with growing recognition from economists that economic growth that relies upon on cheap fossil fuels and other non-renewable natural resources cannot be sustained. The use of the concept of a "just transition" or, more specifically, "just energy transition" has declined in the US context in the last two decades but has been on the political table in the European Union and member states of the United Nations in the Global South over the same period.<sup>45</sup>

## 3.3. JUST TRANSITIONS AND ENERGY JUSTICE

The call for just energy transitions is conceptually interwoven with the concept of "energy justice", which is disaggregated into distributional, procedural and recognition justice.<sup>46</sup> Distributional justice refers to the way in which societies share the positive and negative effects of energy policies; procedural justice stresses the importance of the just participation of all stakeholders in the process of policy development; while recognition justice involves the delimitation of adversely affected peoples. Accordingly, although "justice" in energy transitions is typically understood as a final result, justice must also be seen as a process.<sup>47</sup>

The Just Transition Research Collaborative provides four approaches to understanding energy justice.<sup>48</sup> The first is the "status quo approaches" which consider a voluntary, private and

market-based greening of the system that maintains its capitalist traits; the second is the "managerial reform approaches", in which the public sector assumes higher importance, without changing the inherent capitalist balance of power; the third is the "structural reform approaches", which highlight the need for a redistribution of power and the existence of social property for key assets and activities; and, finally, the "transformative approaches", which support a radical change of the economic system, as this system is assumed to be responsible for all the negative socio-economic and environmental outputs.<sup>49</sup> International organisations tend to position themselves between the managerial and the structural approaches, while unions and non-governmental organisations, on the other hand, tend to position themselves with transformative approaches.<sup>50</sup>



## 3.4. THE INTERNATIONAL CONTEXT: JUST TRANSITIONS

The concept of "just transition(s)" finds itself located in policies and in the establishment of "Just Transition Commissions" in several developed countries and complex social packages for coal phase-out in Europe.<sup>51</sup> For instance, the German phase-out of coal subsidies involved a savings package for unemployed miners. Subsidy reform packages introduced by the United Kingdom provide similar compensating measures to affected groups.<sup>52</sup> Spain's just transition plan for coal miners includes early retirement, redundancy packages, silicosis compensation, retraining for green jobs, and priority job placement for former miners.<sup>53</sup> The US Green New Deal Resolution prioritises structural inequality, poverty mitigation, and a just transition. The European Green Deal proposed in 2019 (European Commission 2019), including a UDF100 27 billion "Just Transition Mechanism" to mitigate the social effects of transitioning away from jobs in 28 fossil based industries. It provides targeted support to help mobilise around €55 billion

over the period 2021-2027 in the most affected regions, to alleviate the socio-economic impact of the transition. National level green new deals with strong just transition components have been proposed in South Korea, Australia, Spain, UK, Puerto Rico, Canada, as well as regional proposals across Latin America and the Caribbean.

Below is a list of international organisations supporting Just Transitions.

Table 1

Asian Pacific Forum on Women, Law and Development (Asia Pacific)	Kentuckians for the Commonwealth (US)	
Blue Green Alliance (US)	Just Transition Centre (global)	
Beyond Coal campaign (US)	Latrobe Valley Authority (Australia)	
Central Única dos Trabalhadores (Brazil)	Labor Network for Sustainability (US)	
Climate Action Network (global)	Movement Generation (US)	
Climate Justice Alliance (US)	NAACP (US)	
Cooperation Jackson (US)	National Union of Mineworkers of South Africa (South Africa)	
Dejusticia (Colombia)	Pan African Climate Justice Alliance (Africa)	
Deutscher Gewerkschaftsbund (German Trade Union Confederation) (Germany)	Post Petroleum Transitions Roundtable (Mesa de Transición Post Petrolera) (Argentina)	

European Union (EU)	Indigenous Environmental Network (US)	
European Trade Union Confederation (EU)	International Labor Organization (global)	
Just Transition Alliance (US)	International Trade Union Confederation—af-	
Just Transition Fund (US)	filiated Just Transition Centre (Global)	
Industrial Global Union (global)	Grassroots Global Justice (US)	

## 3.5. CASE STUDY: GERMANY'S EXPERIENCES OF GREEN INDUSTRIAL POLICIES AND IMPLEMENTATION

Germany is an example of a developed country in the process of transitioning, which offers helpful lessons and insights. For this reason, it has been included here as a case study. Germany's green industrial policy, *Energiewende*, translated as "energy turnaround" is the country's presently ongoing transition to low carbon and affordable energy supply.<sup>54</sup> It aims not only to achieve environmental objectives, but also a complex set of economic and social objectives.<sup>55</sup>The latter includes technological innovation, competitiveness, value added, and employment creation. *Energiewende* sets out quantitative targets for

greenhouse gas reduction, renewable energy, and energy efficiency, which are not discussed here in this paper for reason that the scope hereof is confined, more specifically in social interests.

The German government supported renewable energies with compulsory feedin compensation schemes (*Einspeisevergütungen*): power from renewable energy sources can be fed into the grid and has to be bought up by the operating company at a fixed rate per kWh.<sup>56</sup> Until 1 April 2000, the compensation scheme was

simply based on the average electricity retail price for end consumers.<sup>57</sup> Thereafter, compensation schemes were differentiated and have been further refined by an amendment to the Law on Renewable Energies (EEG) on August 1, 2004.<sup>58</sup>

Identifying the employment effects due to clean energy technologies is a difficult task insofar as the results of that study vary according to the methodologies applied, in particular with the consideration of the indirect employment effects in upstream sectors. <sup>59</sup> Pegals <sup>60</sup> provides an overview of the results of three recent studies on employment created in the German renewable energy sector, captured in the table below.



Table 2: German gross employment in renewable energies, overview of study results

Study	Aretz et al. (2013)	Lehr et al. (2015)	Prognos (2015)
Gross	166,000 in 2012,	371,400 in 2013,	104,000 in renew-
employment	only direct effects	direct and indirect effects	able energies in 2011; a further 293,000 not clearly attributable to
			conventional or re- newable energies

Source: Pegals,A(2017)

Lehr and colleagues<sup>61</sup> provide a valuable overview of job developments from 2004 to 2013 (Figure 1). While the number of people employed in the different renewable energy technologies grew considerably from 2004 to 2012, it declined in 2013. This is almost entirely attributable to

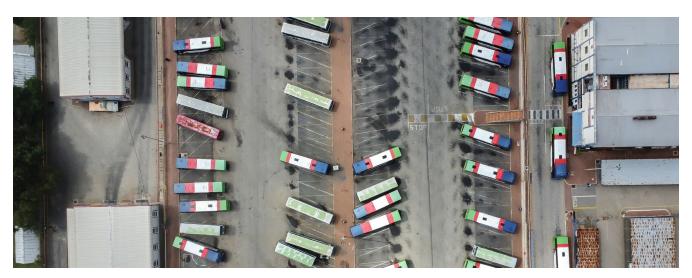
job losses in the solar photovoltaics industry. While the number of people employed in solar cell manufacturing nearly halved in 2013, employment in the other technologies remained relatively constant or increased.

Thousand Solar Geothermal

Figure 1: German gross employment in renewable energies, 2004–2013

**Source:** Lehr et al. (2015). **Note:** Values for 2013 are estimates.

Nestle and colleagues<sup>62</sup> contrast total employment created by renewable energies with total employment created by the German coal industry. Their analysis indicates that renewable energies create considerably higher numbers of jobs, despite recent job losses in the photovoltaic industry (see figure 2 below). Furthermore, it shows declining employment numbers in German hard coal mining. The results of the comparison nevertheless strongly depend on the methodology of attribution and industry boundaries. Prognos<sup>63</sup> calculates a total of 140,000 jobs created by conventional energies in 2011, including jobs in hard coal, lignite, natural gas and mineral oil products, as compared to 104,000 jobs clearly attributable to renewable energies.



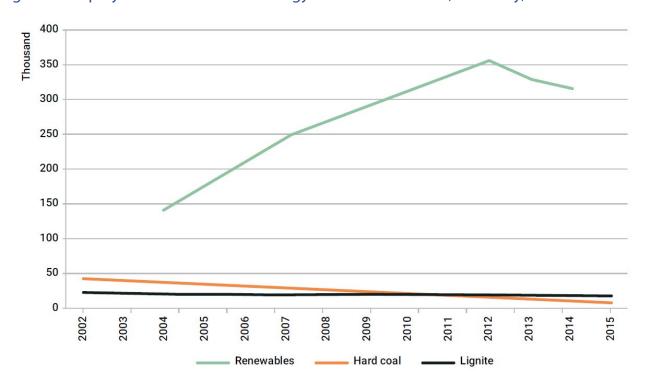


Figure 2: Employment in renewable energy and coal industries, Germany, 2002-2015

**Source:** Adapted from Nestle et al. (2016: 9), data from Lehr et al. (2015), O'Sullivan et al. (2015), Statistik der Kohlewirtschaft e.V. (2016a), Statistik der Kohlewirtschaft e.V. (2016b).

When assessing the effects on inclusiveness, not only employment effects but also price increases in households, merit consideration. These are increasingly causing concern in the case of Germany and the distribution of additional costs of the *Energiewende* has become subject to public scrutiny. The principal idea of the German support scheme is to subsidise renewable energy technologies by adding a surcharge to the price of electricity. This surcharge entails a net cost factor and a distributional factor, the details of which are beyond the scope of this paper.

The *Energiewende* is a comprehensive and complex undertaking. Germany has made considerable progress particularly in the deployment of renewable energies for electricity generation and stands as a case study for the purposes of comparison and possible imitation.



## 3.6. SEVEN PRINCIPLES OF JUST TRANSITIONS

In a paper<sup>64</sup> by Stockholm Environment Institute (2020), a key international thought leader on the topic, the authors delineate seven principles for Just Transitions. They are as follows:

#### 1. Actively encourage decarbonisation

The authors, Aaron Atteridge and Claudia Strambo contend that the prospect of negative impacts in carbon-intensive regions is not a reason to avoid or delay decarbonization, and that delay is "fundamentally unjust". A just transition is one that is in line with achieving globally agreed climate goals – that is, one that accomplishes a very swift decline in emissions towards a near-zero carbon economy. SEI expresses that stakeholders must work actively towards decarbonizing economies as fast as possible and invest in a clean energy transition, and in greenhouse gas reductions, particularly in hard-to-abate sectors (e.g. cement production, chemical production, steel manufacturing, heavy transport, waste) that have few realistic, low-carbon substitutions available. This must happen alongside the creation of "space and support for just transition planning". Governments must be encouraged to reshape the norms around decarbonisation and transition, particularly where debates concerning transition are absent. Practical steps that different stakeholders in regions facing future transition can take in anticipating change must be outlined for governments. This will help to lower resistance to decarbonisation, and ensure that time is used for preparation rather than avoidance.

#### 2. Avoid the creation of carbon lock-in and more "losers" in these sectors.

This principle requires policymakers to ensure that transition is not undermined by ongoing investment or other forms of support to carbon-intensive industry (where alternatives are available) or fossil fuel production, or to reinforce the dependence of other businesses on these activities. New investments linked to high-carbon assets or activities must be discouraged. Support programmes should not enhance the dependency of workers – or of local, regional, and national economies and political regimes – on fossil fuel-based economic activities. For example, programmes targeting SMEs that depend on carbon-intensive industries should support diversification. Reviving or prolonging the decline of carbon-intensive industries must be avoided. Fiscal reforms, particularly fossil

fuel subsidy reform, must be implemented. Policies that promote or maintain carbon lock-in should end. This frees up more government revenue to support transition planning, and to roll out policies, investments and financial support measures for affected communities

#### 3. Support affected regions

This means to generate opportunities to nurture and maintain economic vitality and stability. Support to regions with lower financial capacity to invest in diversification, and those who bear lower historical responsibility for global emissions must be prioritized. Policy-makers ought actively to support regions that presently depend on high-carbon industry with finance (including investment), technical assistance and policy engagement that promotes diversification of the economy and re-skilling of workers. 65 Policy-makers should also support the private sector, argue the authors, by ensuring tailored support to promote new and expanded SMEs. SME-targeted assistance should be tailored towards opportunities that generate significant, sustainable new employment opportunities. Diversification of SMEs dependent on carbon-intensive industries should be supported. The private sector should bear those costs that can and should reasonably be anticipated as part of its business. These costs include those mandated by new environmental regulations, and the effects of carbon pricing pressures (whether imposed domestically or through international supply chains). Nevertheless, allowances for the, costs associated with voluntary changes to reduce carbon intensity might be appropriate in order to obtain concessional financial support. Solutions must also be locally contextualised, i.e. policymakers makers need to ensure that decisions about major, new industrial investment consider local assets and capacities, along the lines of the European Commission's "smart specialsation" agenda.

Research and education is fundamental to supporting affected regions, according to Atteridge and Strambo. Poliocymakers should work with educational institutions and the private sector to identify and address the skills gaps that constrain private-sector growth and investment, infrastructure is also a key component of supporting affected regions. The financing of universal infrastructure (such as transport, communication and education) that aids a wide range of beneficiaries should be a priority. Policymakers should focus on increasing the connectivity between carbon-intensive regions as well as the regions surrounfding them— in particular, urban and rural areas should be linked. These policymakers should also seek opportunities to repurpose existing industrial infrastructure, where this might be an asset or magnet for new and small businesses with similar technical needs.

The authors further encourage urban regeneration, i.e. supporting activities that promote urban regeneration of town centres, rather than the creation of new business parks around the fringes of towns. Supporting urban renewal and preventing decay can play an important role in maintaining or encouraging positive sentiment among the private sector. This, in turn, can create a loop of positive investment feedback.. Policymaker-sPolicymakers should also explore options for raising capital for regional investment in green industries and green infrastructure (e.g. issuing green bonds). The authors also suggest the reforming of fiscal policy so as to ensure the maintenance of public income and resources, and to guarantee the provision of key services in affected areas. Other efforts to strengthen institutional capacity in the public sector would also help, including addressing environmental legacies, and the strengthening of the rule of law and democracy.

#### 4. Support workers, their families and the wider community affected by closures or downscaling

Policymakers need to ensure assistance to find new opportunities for livelihoods. When re-employment is not possible, it is essential to ensure that adequate social protections are available. Policymakers must provide avenues for the re-skilling of workers affected by low-carbon transitions, and ensure that these programmes are also available for workers' families and the wider community. Furthermore, opportunities for other forms of personal support, such as job-seeking, mental health counselling, and financial planning, should be scaled up as social safety nets, particularly in regions where rapid or large-scale decarbonisation is on the horizon, and where existing social protections are weak, should be scaled up.

### 5. Clean up environmental damage and ensure that related costs are not transferred from the private to the public sector

The authors argue that regulatory requirements and financial guarantees for mines and major industries in relation to site closure and environmental remediation responsibilities must be strengthened. Moreover, they argue that policymakersmust ensure that individual mines have closure plans in place, and that financial resources for clean-up are secured by government. Further, requirements should be introduced to ensure that mines upgrade these plans to reflect new closure scenarios, such as externally driven closure scenarios, which occur before planned end-of-mine-life.

#### 6. Address existing economic and social inequalities

SEI authors put out that measures need to include a "social equity perspective". Social equity and the empowerment of vulnerable social groups must be an explicit goal in de-

signing support measures, evaluating economic opportunities, assessing impacts, and prioritizing transition support outcomes, argues SEI.

Target support measures (such as SME initiatives, infrastructure investments, and policy reforms) to avoid higher cost burdens on the poor or other marginalised groups are critically I, portant. All measures should actively aim to reverse trends of inequality. This means identifying and understanding pre-existing social inequalities (such as those based on gender, age, ethnicity or disability) and understanding the distributional impacts of transition and of different support measures. Transition support measures should target not only workers from carbon-intensive industries directly but also their families, contractors and other vulnerable groups. Gender equality – and measures targeted at addressing gendered inequality - should be integrated into any package of transition support, including when designing support measures. These include evaluating employment and other economic opportunities; assessing livelihood impacts or environmental costs; and prioritising outcomes from transition support. Indicators used to assess the progress of just transitions should go beyond net job creation, diversity of manufacturing, and regional economic growth. The quality of life is a vital consideration. Other indicators could relate to, for instance the kinds of jobs created, who has access to them, and levels of broader community resilience and innovation. Fossil fuel subsidy reform, strengthening of social safety nets, and programmes such as energy efficiency measures that result in cost savings for low income households can contribute to the tackling of inequality and vulnerability. Investment support for types of public infrastructure, and the design of public infrastructure that can provide significant benefits to poorer or otherwise more marginalized members of the community should be prioritised.



#### 7. Ensure an inclusive and transparent planning process

The SEI authors contend that the process of policymaking g should be based on wide social dialogue. Economic development paths and priorities should be determined locally. International cooperation and solidarity are needed for financial and technological support. Opportunities for wide local engagement with transition planning must be created, so that many different stakeholders and social groups are active participants in defining regional visions and opportunities, and in identifying the challenges and risks that need to be managed. Locally driven and coordinated transitions have tended to fare better than those coordinated by national governments.

Further insights on Just Transitions from Stockholme Environment Insititute (SEI) may be found in another paper published them titled "Insights from historical cases of transition: background paper for the European Bank for Reconstruction and Development just transition initiative" (2020),66

The key is to support workers (both those who are directly and indirectly impacted) through new employment opportunities, retraining, mental health support, and financial resources. The negative effects of industrial transitions can be addressed by using lessons learned from previous transitions. To support workers, a variety of short- and long-term measures are necessary. The outcomes of transitions from mining to non-mining areas can be influenced by the design of regional economic development and regeneration policies. These areas struggle with a number of issues, including aging populations, a lack of skilled workers, and underdeveloped institutional and organisational structures. In view of the variety of regional conditions, it follows those generalisations with regard to particular locations must be made with caution.

The decline of the gold mining industry in the Free State province in South Africa had profound social and economic impacts. The downturn was particularly difficult for women because of the resulting increase in increased gender-based violence. Some measures were put in place to encourage economic diversification, but the results have been less than desirable. The Free State case illustrates how a local, convening organisation outside government can play a key role in transitions. Multi-stakeholder collaboration and planning are needed for the regeneration of urban areas. Addressing basic services in urban areas is a critical step towards instilling public confidence.

"Bottom-up" approaches to regional economic development, or those developed at the local level, are crucial for delivering policies and solutions that meet the needs of employees and locals. The State is frequently asked to take on a role, most notably by making sure that new

or existing policies can address impacts. Diversifying their core activities, which has a smaller impact on the community, has been a key strategy for businesses facing significant production downscaling. The government and public institutions may have a role in facilitating this change along the entire value chain (often made up of smaller companies).

In terms of resources, timeframe, and global scope, the deep economic restructuring linked in combating climate change requires an unprecedented effort. There is a wealth of historical data from past structural changes that can be used to gain some understanding of how to speed up the procedure and lessen the negative effects (both in terms of severity and duration) on communities and workers. Regions in decline should not pass up opportunities presented by the shift to a green economy. There is no such thing as a one-size-fits-all strategy, and fiscal policies that primarily benefit large corporations may not produce the best results over the long run, even though they might result in some temporary relocations.



## 3.7. THE JUST ENERGY TRANSITION, LABOUR AND POVERTY IN SOUTH AFRICA

Three features of South Africa's political economy have contributed to the country'sfailing economic framework and the related socio-economic inequality.<sup>67</sup> South Africa's economy is heavily based on mining, mineral processing and heavy industry, subsided by cheap electricity. This has been critically evaluated as the "minerals-energy complex (MEC)" by Fine and Rustom-jee.<sup>68</sup> SA's emission intensity (emissions per unit of output) in 2018 was 2.5 times the global average, about five times higher than in the US. Four-fifths of total emissions in South Africa are attributed to energy supply and use.<sup>69</sup> The MEC may be described as the hegemonic industrial structure, comprising key sectors in mining, energy and related industries with strong inter-sectoral linkages.<sup>70</sup> It operates in isolation particularly from labour-intensive non-MEC sectors, excluding finance.<sup>71</sup> The MEC is constituted by vested interests within the State and fractions of capital that shape economic policy in their favour through conflict and compromise.<sup>72</sup>



## 3.8. THE NATIONAL DEVELOPMENT PLAN (NDP)

Governments are increasingly turning to the development of national plans to build institutions, mitigate climate change, and to guide national development plans across 17 countries, which has doubled to 134 plans published between 2012 and 2018xcvii. South Africa adopted its first National Development Plan (NDP) in 2011xcviii. This was in the same year in which the country adopted its National Climate Change Response White Paper and hosted COP17 in Durban.xcix Chapter 5 of the 13 NDP addresses environmental sustainability in the context of development planning. It uses the phrase "an equitable transition to a lowcarbon economy". The chapter refers explicitly to the need for a just transition, protecting the poor from impacts and any transitional costs from emissions-16 intensive to low-carbon. The plan proposes several mitigation measures, including a carbon budgeting approach, reference to Treasury's carbon tax, use of various low carbon options while maintaining 18 energy security, and the integrated resource planfor electricityc.

The National Planning Commission (NPC), which wrote the country's NDP and advises the government on long-term development and policy matters is currently in the process of revising the original NDP. The new National Planning Commission NCP in July 2022 released a "Diagnostic Overview" which aims to identify the main challenges confronting the country and to examine their underlying causes. In the overview, it states that "the diagnostic is not a plan – it provides the basis for a plan". The diagnostic report states that:

"A combination of rising energy prices, a desire for energy security and the threat of climate change will continue to drive changes in the way societies work. Similarly, rising demand for food is likely to result in higher food prices globally. Beyond their direct impact on South Africa, these drivers will have profound effects for our economy and society, both offering opportunities and posing threats. Beyond the transition to new energy technologies, developments such as the convergence of nanotechnology, biotechnology, information technology and cognitive science in new configurations will almost certainly reshape economies, societies and lifestyles."

- NPC 2022

The NDP, which has been said to be collecting dust since its inception, provides a springboard for the National Planning Commission to produce a new plan. The NPC's July 2022 Diagnostic Overview is the restructured or "new" NPC's initial step in providing a comprehensive plan.

The new NPC has proposed emergency measures to end SA's power crisis by prioritising new power generation through energy reform proposals.

The complex cross-cutting social crises of unemployment, poverty and inequality which are exacerbated by environmental crises in South Africa are, in part, the result of the MEC and an orthodox macroeconomic framework.ci Structural unemployment and poverty characteristically define the economy, in part, because the MEC is dominated by upstream sectors that are highly capital-intensive.cii In other words, the MEC industries employ more machinery than workers.cii The MEC is also highly concentrated, with a few major firms enjoying preferential access to key resources such as minerals, land, water and energy. Following the liberalisation of the financial sector, investments by companies linked to the MEC are mainly focused upon shortterm and speculative financial assets, rather than in employment-generating productive activities, particularly those that do not harm the environment. civ The concentrated nature of the MEC exacerbates existing socio-economic structures.<sup>cv</sup> In addition, the sidelining of public investment and the loss of public resources through corruption and maladministration, has been reinforced by austerity measures, thereby reducing the ability of sustainable and productive sectors to create jobs. Wi The MEC is part of a system that also exploits black labour through low wages and poor working conditions and devalues reproductive labour without bearing the social costs.cvii The MEC has contributed to climate change and environmental destruction through its appropriation and intensive use of subsidised fossil-fuel-based energy. CVIII Supported by the history of apartheid's segregation policies, the MEC has also shaped the geographical location of economic activity, the urban working class and greenhouse gas (GHG) emissions.cix



## 3.9. COAL-MINING IN SOUTH AFRICA, AN INDUSTRY THAT NEEDS RENEGOTIATION

South Africa's local economies rely heavily on coal mining, and the impact on other industries could be significant.<sup>73</sup> Diversification of the economy is critical to mitigating the decline of the coal sector.<sup>74</sup> A decline of the coal mining industry, particularly if unmanaged, could have significant political ramifications. A significant drop in coal production poses an existential threat to some sectors of the labour movement<sup>75</sup>.

Atteridge *et al* (2020)'s research found that the environmental impact of coal mining is a major concern in Mpumalanga. Some are concerned that small mining companies will fail to meet their legal obligations.<sup>76</sup> Mining companies in South Africa are required to set aside funds for environmental rehabilitation.<sup>77</sup> Communities are frequently left out of decisions about whether mining can take place on their land. Transition strategies must consider how long-term environmental impacts from coal mining, as well as climate change impacts, may limit future economic activity, particularly in agriculture.<sup>78</sup>

The National Planning Commission (NPC) has launched a Stakeholder Dialogue on Just Transition Pathways. It aims to create a shared vision and agenda among four social partners: government, labour, civil society, and business. The Dialogue can provide useful guidance and a forum for discussing the numerous challenges associated with coal transitions. Social and Labour Plans (SLPs) are likely to play an important role in coal transition planning. An SLP, which is a licensing requirement for mining operations, is a document that describes how the mining



company plans to share some of the benefits from mining operations with local communities. SLPs were introduced in 2002 as a means of addressing mining-related conflicts. Despite their theoretical advantages, research has revealed that they have systemic deficiencies. Improving the effectiveness of the SLP system could be one of the first steps toward establishing functional mechanisms for planning and implementing transition strategies. This includes ensuring that all stakeholders have a shared understanding of the challenges that lie ahead. The magnitude of the challenge necessitates industry-wide collaboration. Economic diversification strategies to build resilience include exploring and investing in existing sectors with related skills, building competitive advantage in new sectors, and infrastructure investment is imperative, according to Atteridge et al (2020). Many of these lessons have come from developed countries. Implementation will be even more challenging in a developing country such as South Africa.

Concerns about the risks to workers and the local economy may inhibit South Africa's energy transition. Risks to livelihoods may become a political barrier, exacerbated by institutional dynamics and likely union resistance. It is critical to reconsider the current landscape of environmental and mining governance. A critical step in transition planning is to further assess the risks and vulnerabilities of various people in Mpumalanga, particularly coal workers. Planning coal transitions necessarily requires taking structural unemployment and the country's lack of economic growth into account.



## 3.10. LABOUR ON A JUST TRANSITION IN SOUTH AFRICA

In South Africa, the interaction between the labour movements and the environmental justice movements has brought about discussion on what a "just transition" means for the nation. 

81AAccording to Willis (2021),82 however, there is an absence of a coherent ,unified position from the various labour movements in the country. He contends that "some unions representing workers in South Africa have made it clear that they are open to discussion pathways towards a just transition, whereas other unions have not made official statements on the matter". There is a diversity of trade unions across South Africa, but for the purposes of this paper attention is focused on three: the Congress of South African Trade Unions (COSATU), which is a labour union representing all workers in South Africa, the National Union of Mineworks (NUM), which represents mine workers, and National Union of Metalworkers South Africa (NUMSA), which has a specific focus on miners and metalworkers.

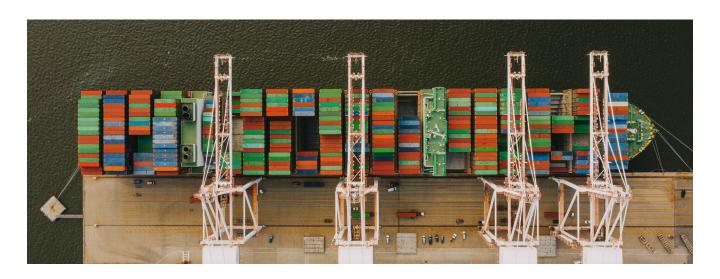
COSATU has developed a policy on climate change, entitled *A Just Transition to a Low-Carbon and Climate Resilient Economy* published in 2012. COSATU, in its policy recognises the necessity of moving away from a high carbon economy powered by oil and coal to a low-carbon economy powered by wind and solar butit rejects the proposition of privatisation of the energy sector. The General Secretary of NUMSA Irvin Jim in 2018 expressed the view that:

"We demand a Just Transition, which will ensure that workers at coal-fired power plants who may lose their jobs as a result of the transition from fossil fuels to renewable energy, will be trained and absorbed into the renewable energy sector."83

This quote suggests that, while NUMSA is prepared to engage in discussions on worker demands in the just transition, it has not issued an official policy on climate mitigation in the way that COSATU has. In the same vein, there is no official position on climate mitigation or a just transition from NUM, only a rejection of independent power producers.

COSATU's 2012 policy, by contrast, states that trade union organising in the context of just transition economic restructuring requires evidence-based analysis of the intersecting relationship linking sector production changes, trade union recruitment, organising practices and worker representation<sup>84</sup>.

Lebogang Mulaisi, Labour Market Policy Coordinator of COSATU and Khwezi Mabasa, Senior Researcher, Mapungubwe Institute for Strategic Reflection (MISTRA) in their essay in the Presidential Climate Committee's Expert Perspectives: Supporting a Just and Climate-Resilient Transition in South Africa, express the view that "increased uptake of Al-driven digital and low-carbon technologies will exacerbate the long-standing structural challenges facing worker organisations and collective bargaining". For example, South Africa's Renewable Independent Power Producers Procurement Programme created 59,071 employment opportunities by 2021 (measured in job years).85 Research papers produced by MISTRA (2020) illustrate that employment creation and skills development can expand rapidly in a low-carbon economy transition provide that they are supported by adequate policy measures aimed at producing socioeconomic multiplier effects. Moreover, MISTRA's findings identify building local value chains, increasing low-carbon energy demand and domestic manufacturing as critical to job creation in a just transition. Mulaisi and Mabasa (2022) identify that the lived experiences of South Africans who have accessed employment opportunities in these emerging sectors, especially workers in low-skill occupations and targeted community beneficiaries, is missing from the MISTRA reports. Mulaisi and Mabasa (2022) reason further that worker organisers need support in developing training, negotiation and policy education capabilities to map employment dynamics in these new sectors through a holistic approach. This includes examining wage trends, the nature of employment contracts, working conditions and union density. The authors write further that the groundwork for a Just Transition in South Africa has been established by the country's trade union movement advocacy through worker-affiliated policy training and research institutes, such as the National Labour and Economic Development Institute (NALEDI). It needs to be developed further by using sector-specific worker surveys, experiential learning and dedicated support programmes for worker organisers.





According to Mulaisi and Mabasa (2022) trade unions are i currently deliberating several policy propositions that can alleviate negative labour market and livelihood impacts. The authors contend that a universal basic income grant is one example of a possible solution, "since it can provide transitional social security for displaced workers and create a 'safety net for communities hard hit by policies in a low-carbon economy". The next section reviews social protection in South Africa and discourses on how it can provide safety nets for vulnerable people in the face of climate change and adaptation structural changes.

In COSATU's updated Just Transition Blueprint for Workers (2022), the trade union makes five essential demands as follows:

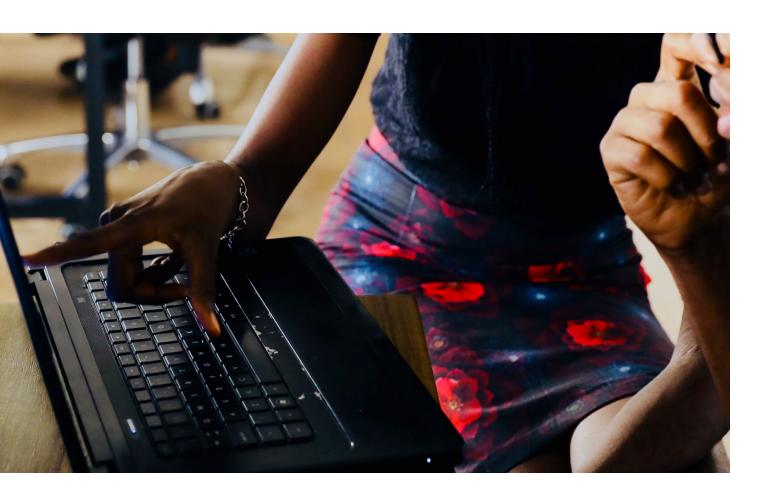
"Job creation is an immediate priority which can be addressed in many ways. One, government's Master Plan should prioritise environmentally beneficial, job creating sectors. Two, there should be massive investment in public-sector climate jobs as laid out in the One Million Climate Jobs Campaign, which should be revived as the foundation of a jobs plan. Three, government should expand social services (care work) that prioritise the well-being of all people and the environment, and reduce the burden which is now largely carried by Black women in South Africa. Four, trial a job guarantee in the Mpumalanga region. For the long-term, priorities are to address wealth inequality and change how we value work" 86

"A UBIG is a vital social safety net for all. A just transition aims for more jobs, but those who do unpaid work and anyone who is unemployed or underemployed will still need support. Cash transfers can alleviate hunger and poverty, stimulate the local economy, and increase resilience to climate and transition impacts such as natural disasters, drought, and job loss. A UBIG within an array of social protections changes how work isvalued and provides more space for people to choose how to spend their time. The demand is currently on the Department of Social Development at national government level." 87

"Workers who are vulnerable to job losses can demand training programmes to equip them for jobs that are created through a just transition. The first step is to audit workers in vulnerable sectors to identify skills, interests, and areas of development. Then training programmes should be developed for alternative industries identified to support economic diversification. Training should be coordinated at the level of the bargaining council for these sectors and should be certified and funded through SETAs".88

"Lack of access to land undermines people's ability to adapt and to use the opportunities of a just transition. It affects how transport systems are designed and developed, where jobs are, who is able to capitalise on new opportunities, and who profits. Ensuring secure access to and ownership of land is essential to provide the security and flexibility to adapt to the effects of climate change, improve resilience of individuals and ommunities, implement climate-friendly solutions, and address underlying inequality."89

"Significant investment is needed to ensure a just transition. That requires a revised macro-economic framework which rejects austerity. Reduction of social spending must stop. In the long-term, the macro-economic framework must shift further to raise spending on climate-resilient infrastructure and social needs (public employment schemes, expansion of public services, and social protection). It needs progressive taxation such as a wealth tax, increased taxes on environmentally damaging activities, a resource rent tax, and even a global wealth tax to generate revenue. The South African Reserve Bank should replace inflation targeting with monetary policies which support employment and environmental sustainability, reduce costs of borrowing so that the state can support a just transition through public investment, increase direct financing of green investments, increase control on capital for stability, implement disclosure mechanisms for financial risks associated with climate change, and set a required level for green investment. Shifting the macro-economic framework will require advocacy at the level of the PCC and national government. The state must leverage public funds for a just transition in order to challenge its greenwashing by the private sector. A privatised transition would not be just".



#### 3.11. SOCIAL SECURITY IN SOUTH AFRICA

Social security, as defined in the introduction section of this paper, "improves resilience, reducing economic pressures and inequalities that vulnerable communities face by providing access to financial resources, such as unemployment insurance, pension grants, saving schemes or cash transfers.<sup>91</sup> Social security also builds direct resilience through absorptive capacity, anticipatory capacity, and adaptive capacity.<sup>92</sup>Adequate and universal social protection as set out in ILO Convention 102 on Minimum Standards of Social Security and Recommendation 202 on Social Protection Floors protects people from falling into poverty and social exclusion in case of unemployment or injury.<sup>93</sup>

The social security system in South Africa consists of three main components<sup>94</sup>:

- Private savings people voluntarily save for unexpected contingencies such as disability, retirement and chronic diseases.
- 2) Social insurance joint contributions by employers and employees to pension or provident funds, or social insurance covering other unexpected events. Government may also contribute to social insurance covering accidents at work.
- 3) Social assistance non-contributory and income-tested benefits provided by the State to groups such as people with disabilities, elderly persons and unsupported parents and children who are unable to provide for their own minimum needs. In South Africa, social assistance has taken the form of social grants.

In this paper we look at social assistance as the pillar of social security that affects the poor most directly in South Africa and as a mechanism that can provide most influence for positive social directives by the State.

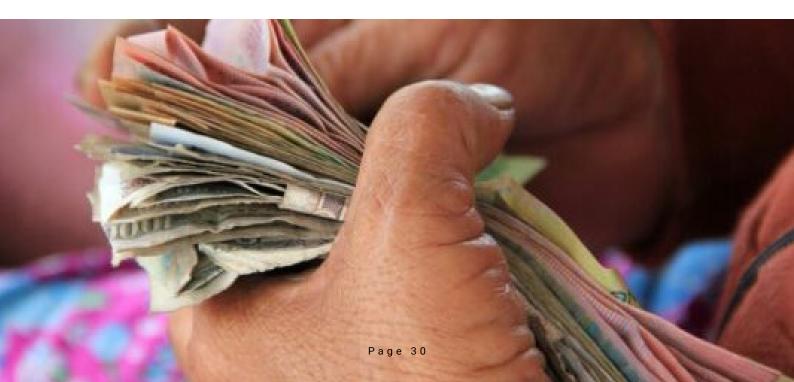
An inefficient and ineffective social welfare system was inherited by the new South African government in 1994. "There were 14 different departments for various race and ethnic groups and the then homelands that were also administered through the welfare system." Since then, the social security system has evolved but it remains ineffective and ineffective.

In South Africa, about half of the population lives in poverty and more than one in five people have inadequate access to food. 96 The National Income Dynamics Study (NIDS) Coronavirus Rapid Mobile Survey (CRAM) records that 10 million people and three million children went hungry during April and May 2021. 97 Research is currently being undertaken by a host of organisations, including SPI, to support the implementation of a universal basic income guarantee (UBIG) as a way to alleviate the plight of people in South Africa.

Social security is underwritten in the 1996 Constitution (final Constitution).

Section 27(1)(c) of the Constitution provides that "everyone has the right of access to social security, including, if they are unable to support themselves and their dependants, appropriate social assistance." This sentence affirms the universal right to access to social security for all in South Africa. On the other hand, section 27 (2) provides that "the State must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights." The latter sentence places limitations on the provision on social security, where the right is contingent on the availability of resources. This contradiction in terms has been a matter of contention in the discourses and praxis of social security in South Africa.

South Africa signed the International Covenant on Economic, Social and Cultural Rights (IC-ESCR) in 1994 but ratified the Covenant only in 2015, thereby underscoring the State's commitment to alleviating poverty and ensuring social justice. The Covenant calls for countries to use "maximum available resources" and "all appropriate means" to progressively realise the [human] rights[...]" These include rights to: work, fair wages, safe and healthy working conditions, joint trade unions and strike, social security, an adequate standard of living, freedom from hunger, the highest attainable standard of physical and mental health, free and compulsory primary education and secondary and higher education.



South Arica's ratification of the Covenant also meant that there was an obligation on the State to ensure that its domestic laws and practice are consistent with international law. This is line with article 27 of the Vienna Convention on the Law of Treaties, 1969, which places a duty on States to honour their international obligations even if it means changing its domestic law. In its first report on South Africa, which was adopted on 29 November 2018, the CESCR said the levels of all non-contributory social assistance benefits were too low to ensure an adequate standard of living. It contends that those with little or no income between the ages of 18 and 59 and are capable of working are not covered by existing schemes. The Committee recommended that South Africa should: (i) raise the levels of non-contributory social assistance benefits to a level that ensures an adequate standard of living for recipients and their families; (ii) ensure that those between 18 and 59 have access to social assistance; and (ii) establish a floor of social protection. It further recommended that South Africa should expand the coverage of the Unemployment Insurance Fund to all workers, regardless of their status; and consider introducing a universal basic income grant.

# 3.12. OVERVIEW OF SOUTH AFRICA'S SOCIAL SECURITY PROGRAMMES

Currently, South Africa has six types of social grants. These are the Old Age Pension Grant, the War Veterans Grant, the Care Dependent Grant, the Disability Grant, the Foster Child Grant, and the Child Support Grant. In the 2021/2022 fiscal year South Africa spent R224.5 billion on social grants for 18.4 million beneficiaries, and an additional 10.5 million beneficiaries received the R350 a month special Covid-19 social relief of distress grant. The total expenditure on social grants amounted to 3.6% of GDP in that year<sup>99</sup>.

South Africa's spending on social security is not high by international standards, even when benchmarked against upper middle income countries. In 2021 the ILO stated that South Africa has public social security spending (excluding health) of 5.5% of GDP compared with a world average of 12.9% In 12.

There was poor coverage of only 11.9% for unemployed people. This was below the global average of 18.6%. The coverage for other regions was: Europe and Central Asia (51.3%), the America's (16.4%), Asia and the Pacific (14%) and Africa (5.3%). There is no permanent cover for able-bodied working age people.

## 3.13. A BASIC INCOME GRANT: A POSSIBLE GAME CHANGER

In March 2002, Viviene Taylor, the chairperson of the *Committee of Inquiry into a Comprehensive System of Social Security for South Africa* presented a seminal report *Transforming the Present – Protecting the Future* to the Minister of Social Development, Zola Skweyiya. It was in this report that the concept of a universal basic income grant in South Africa was first introduced.

Two decades after the release of landmark Taylor report, the BIG has made a dramatic comeback in South Africa. "In the context of widespread hunger, declining income and job losses, calls for a Universal Basic Income Guarantee (UBIG) have increased," the Institute for Economic Justice (IEJ) says.

There has been a proliferation of reports, which outline in detail how a BIG can be financed and implemented. Some of the reports are listed below -

- 1. Working Paper: A Basic Income Grant for a Better South Africa: The Evolution of Social Assistancence in South Africa after 1994 (Duma Gqubule (Social Policy Initiative, 2022)
- 2. Social Protection Pathways to a Basic Income Grant Beyond Covid-19 by Viviene Taylor (Taylor, 2002)
- 3. Basic Income Support for the Unemployed Aged 18 59: A Discussion Paper (Department of Social Development) (DSD, 2020)
- 4. From a "Two-speed society" to one that works for allby Colin Coleman (Coleman, 2020)
- 5. Towards income security for all: Institute for Economic Justice Policy Brief (IEJ, 2021a)

- 6. Universal Basic Income Guarantee: Financing Options Analysis (DNA Economics, 2021)
- 7. Fiscally Neutral Basic Income Grant Scenarios: Economic and Development Impacts (ADRS, 2021b)
- 8. Microsimulation analysis by SASPRI for the project on the rapid assessment on the implementation and utilisation of the R350 Covid-19 Social Relief of Distress Grant: Modelling Options for a Basic Income Grant. (Wright et. al.,2021)
- 9. Draft Report: Financial Feasibility of the Basic Income Grant (Deloitte, 2020)
- 10. A Basic Income Grant for SA: With a Focus on the Costs and Financing Options (Joint ANC Economic and Social Transformation Task Team BIG) (ANC, 2021)

### 3.14. SOCIAL SECURITY AND JUST TRANSITIONS

In a policy brief by the International Trade Confederation (ITUC), titled Economic *and Social Policy Brief: The Role of Social Protection in a Just Transition* (2018), it is argued that is necessary for policies to ensure income security and job transition measures for workers, as well as skills development measures. ITUC argues that if not accompanied by social protection programmes, the phase out of policies that encourage fossil fuel consumption, such as fuel subsidies, may also affect the disposable income of poor and vulnerable households, who tend to rely on such subsidies the most. This was, for example, the case in Egypt. The development or expansion of social protection benefits to accompany reforms aimed at reducing subsidies for fossil fuel consumption can mitigate negative effects on low-income households, says ITUC. To a policy and subsidies for fossil fuel consumption can mitigate negative effects on low-income households, says ITUC.

ITUC argues that a just transition necessitates a social protection system that prevents poverty and social exclusion for those that lose at least part of their income or employment owing to the effects or mitigation of climate change. Social protection can also help people to deal with the direct impact of climate change, such as floods and droughts, ITUC furthers.<sup>104</sup> ITUC reasons furtherthat adequate social protection can support communities that rely on fuel intensive industries when these are scaled down in the processes of green transitioning. Moreover, policies in line with ILO Recommendation 204 on the Transition from the Informal to the Formal Economy can contribute to the extension of social protection to workers in the informal economy.<sup>105</sup>

In addition to social protection, active labour market policies (ALMP) can also make the transition to low-carbon jobs easier, an example of which is offering training in new skills, providing job search assistance or by providing relocation grants when it is not possible to find a suitable job in the area. <sup>106</sup> In this respect, it is essential that ALMPs are indeed used as an addition on top of adequate social protection and not as a replacement, argues ITUC.

Public Employment Programmes (PEP) can also be part of an active labour market policy, by directly creating employment, such as the MGNREGA employment guarantee scheme in India that contributes to drought-proofing and flood management especially in marginalised communities.<sup>107</sup> PEPs –in this context often referred to as 'Green Works' – can target multiple objectives at the same time, including income security, poverty reduction and the provision of public goods (e.g. climate protection).<sup>108</sup> The main way in which PEPs can contribute to environmental protection is if the employment created focuses around reforestation, and water and soil conservation.

Payment for Environmental Services (PES) programmes, which usually have a primary environmental objective, can also contribute to a just transition by supporting the livelihoods of low-income groups. One prominent example is the Bolsa Verde programme in Brazil, where households living in extreme poverty in rural areas receive income in exchange for maintenance and sustainable use of natural resources.<sup>109</sup>



#### 3.15. EXAMPLES OF SOCIAL PROTECTION POLICIES IN SELECTED COUNTRIES CONTRIBUTING TO A JUST TRANSITION.

<u>United Kingdom</u>: The Energy Company Obligation scheme, which was first implemented in 2013, is an energy efficiency scheme that is aimed at reducing carbon emissions and tackling fuel poverty by subsidising insulation measures for low-income households to save energy and reduce their electricity bills. In addition, the most vulnerable receive a £140 energy subsidy. 110

India: Since 2005, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNRE-GA) seeks to improve the rural infrastructure, augment land and water resources, and strengthen the livelihood resource base of the rural poor by providing adults at least one hundred days of guaranteed unskilled wage employment per year. Every year, about 70 million households participate in this programme.

Egypt: Since 2014, the Egyptian government has drastically reduced fuel subsidies that mainly benefitted the rich, and allocated more resources towards health, education and social protection. Most notably, the Egyptian government extended the coverage social protection programmes for poor families, older people, orphans and disabled people.

<u>Philippines</u>: After Typhoon Haiyan struck the country in 2013, the government swiftly expanded the DILEEP programme. This provided those affected by the storm with up to 30 days of wage employment and social protection in the form of temporary income support and health and accident insurance.





This paper undertook qualitative research interviews seeking to augment the literature on the topic. As this is a new field of enquiry there were seven(7) experts or participants were asked the same set of questions. These experts are Viviene Taylor, a member of the National Planning Commission(NPC), Claudia Strambo, a research fellow at Stockholm Environment Institute, Francesca de Gasparis, the Executive Director of Southern African Faith Communities' Environment Institute, Jesse Burton, senior researcher in Energy Systems Research Group at UCT, Lebogang Malusi, head of COSATU's Policy Unit, Makoma Lekalakala, Commissioner of the Presidential Climate Change Commission(PCC), Dr Roland Ngam, programme manager for climate justice and socioecological transformation at the Rosa Luxemburg Foundation Southern Africa. This section draws out the key insights these experts had to offer. Not all respondents felt comfortable making the link between social security and just transitions, and some had stronger insights to some questions and little to say on other questions. For this reason, not every respondent's answer to each question has been recorded here. I have only picked out key insights.

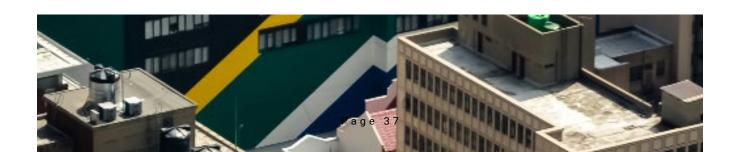
# 4.1. ON THE IMPORTANCE OF SOCIAL SECURITY IN SOUTH AFRICA

Many of the respondents highlighted Social Security as a fundamental Constitutional right. Taylor reasons that "social security acts as form of reparations against historical and contemporary forms of exploitation and economic exclusions. South Africa's political economy and its colonial and apartheid history created conditions that some of us refer to as structural fault-lines in our society". Moreover, she adds that "Social security, in its comprehensive form, acting as a social protection base for those without any waged income, living in extreme poverty and experiencing inequalities is an imperative given South Africa's socio – economic context of mass unemployment and poverty. South Africa's demographic challenges, as well as the devastating impacts of the Covid 19 pandemic, the food crisis and increases in cost of living alongside high unemployment, deepening poverty and increasing inequalities, prompts a renewed urgency

to introduce a universal basic income grant to address poverty, vulnerability and risk". Further to this, she adds that "environmental (pollution, floods, droughts, natural resource depletions etc), epidemiological (HIV/Aids, Ebola, Corona Virus) and financial and economic crises (1998, 2008/2010) are today recognised as recurring and are part of a volatile globalised world. The important issue is that these multiple and recurring crises created a shift in thinking around the role and place of social security. In the wake of financial and economic crises in the 1990s, which resultied in increasing unemployment, continuing and deepening poverty and widening inequality we pushed for a comprehensive social protection system that acts as a buffer for the most vulnerable and at risk in times of crises and is a platform for development in good times. Institutions such as the International Labour Organisation (ILO) led policy debates on the need to mobilise action on social security (World Commission on the Social Dimensions of Globalisation, 2004). Globalisation and the internationalisation of production processes undermine national agreements and compromises reached between governments, workers and employers on social security. These trends, exacerbated by impacts of economic and financial globalisation processes, add new risks and vulnerabilities on top of the existing structurally based poverty and unemployment in South Africa and make social protection with a basic Income an essential requirement to address mass poverty and unemployment.

Similarly, Ngam spoke about the importance of social security as a way to address "the legacy of inequality [in the forms of] unemployment, underemployment, gender discrimination. So because the men go off to the mines, and so on, while the women stay in the rural areas, and all of these things created a major backlog of investment in housing, education, electricity, and so on psychosocial care. And it will take a really long time for all these things to be repaired. And so, investment in this area is of the utmost of utmost importance". Burton said social security is "clearly one of the key mechanisms by which poverty is alleviated for households across different metrics and different kinds of social grants and through the social wage".

Malusi contended that "The fact of the matter is, in the in the short to medium term, it doesn't matter what we do to the economy, whether it grows or not, there remains a substantial amount of working age adults who are just not going to be able to get a job in order to fend for themselves. So, in that context, social security becomes very important, especially in a country like South Africa, we haven't realized proper redistribution redistributed economic growth. And then in the context of the job transition[...] Having a system of social security in place can help us to reduce the impact on the poor as well as on workers, especially when you take into consideration the move towards a low carbon economy."



# 4.2. ON THE MEANINGS OF JUST TRANSITIONS

Taylor has argued that "Energy transition is necessary due to the need to move away from a high carbon economy which is mainly reliant on fossil fuels to a low-carbon economy which is more reliant on renewable and other forms of energy which do not have a significant impact on global warming and climate change. The idea of a <u>just</u> transition is what is needed to manage that transition in such a way that people are not negatively affected especially the poor and working people[...] This requires a strategy to ensure that processes and programmes are put in place to alleviate the harmful effects of transition. If anything, the transition should rather enhance the quality of life of those affected.

In view of the fact that South Africa's economy was largely based on extractives and that areas such as Mpumalang, which has 13 coal mines and Limpopo, as well as other province-semploys a large number of miners, transitioning from fossil fuels will cause major disruptions and dislocations. These disruptions will include problems not only for miners but also for their families and communities. Without a regular stable income, workers will live precarious lives and their families and communities become further impoverished. As workers are retrenched or become unemployed, we are already seeing the erosion of community support systems, of food insecurity and increasing illegal and violent criminal activities become part of a subterranean system. This endangers individual workers, families, and communities. It undermines economic activity and governance systems and puts people's lives at risk.

A just transition to a sustainable and green energy system makes it imperative that the most vulnerable and at risk should be prioritised in policy formulations and equitable ways of ensuring that they do not suffer be designed. One way is to ensure that a comprehensive social protection system with health, education, infrastructure and basic income is provided to all those who need it".

De Gasparis said "Effectively, [just transitions are] not just about changing the source of energy, it's about changing the entire fabric of where jobs are coming from, how we run industry, how we power our homes, how we grow our food, how we transport ourselves" For a just transition to happen, it is necessary for a "complete system change [...]. And within that, those who are most



vulnerable, those who, whose needs are not being met now should be effectively met through the transition. And definitely, by the end of the transition. I mean, it really speaks to a vision of a society, a country where everyone has equal access to basic services[...]. When we talk about the just energy transition, we're talking about electricity in homes and schools and other places where people need to be able to carry out their lives. [It] speaks to education; to people have access to clean drinking water and healthy air. It speaks to human rights, the rights to have a job which keeps you and your family safe, that you don't have to make decisions of do doing something that is ultimately going to harm to feed your family but actually having access to jobs' she furthered.

Malusi has contended that COSATU's call for a Just Transition is multidimensional insofar that "it could help us to address issues pertaining to unemployment issues pertaining to poverty, but most importantly, reducing levels of inequality in South Africa by radically changing ownership patterns and ownership structures in South Africa. So in a nutshell, it's around leaving no worker behind and not leaving and leaving no worker behind, and most importantly, not leaving any person disadvantaged in livelihood. So for example, in our [COSATU's] articulation of a just transition, we're not just looking at the impacts on workers. We're also looking at the impact of informal sector workers who have economic activity surrounding and the fossil fuel industry. So for example, the ladies that sell food outside of a coal fired power station, that person must be disadvantaged in terms of economic participation in the trust transition to a low carbon economy. And we identify the centrality of Social Security in being able to plug that gap".

Lekalakala said that the PCC is "for a decentralized energy system, a socially-owned renewable energy or the socially owned electricity generation". She argued further that the view of the PCC is that a just transition "encompasses the right to have proper public transport" and the right to be in good health. "The health of the people must not be violated, people must have access to clean water, and people will be able to see it with clean air. So for us, it's much more holistic, and not only focused on it does energy transition, but it does transition so that we can have the lives of our people be improved and not threatened by how electricity is generated, which causes global warming and causes climate change". Strambo drew attention to the seven principles, outlined in the literature review section of this paper.

### 4.3. ON THE CHALLENGES WITH PROCEEDING WITH A JUST TRANSITION IN SOUTH AFRICA

Ngam puts fprward the proposition that the first major challenge is a lack of financial resources. "For a 100 megawatt power plant on average, in South Africa costs about 3 billion Rand and so and so you can extrapolate that to be replacing at least 40 gigawatts worth of power [is going to cost a lot of money]. At the same time you need money to train all the workers in the energy sector. Eskom, for example, at the moment after the restructuring that has been done has about 42,000 workers, obviously, not all of them work directly with power generation, the coal sector, the coal or allied Workers Union has about 290 2000 members who also have to be rescaled, and so on. Although, obviously, I must hasten to add that some of these things are going to be delayed due to the Russian invasion of Ukraine. At the same time, you also need the kind of policy preparations that need to be done at government level with municipalities involved in selling, like retailing electricity to end users and so on. And so, transitioning South Africa's fleet to a carbon neutral carbon negative energy sources requires at least over a trillion rand, I would say to do and it will take it will take more than two decades in my estimation".

Taylor has noted that initially the effects of climate change on the poorest and most vulnerable will need to be addressed in South Africa. People suffering in our country because of floods (as in KZN), droughts (as in Eastern and Northern Cape) and other environmental disasters together with epidemics such as HIV and AIDS and Corona Virus are in need of urgent attention. Food insecurity, housing and essential infrastructure should be provided. The resilience and coping abilities of individuals, households and communities are severely adversely affected and they are in need of urgent support. This support should include a basic income to enable people to lift them out of such ecological and economic crises.

The key challenge is to find alternatives for those who are affected by the downscaling of operations related to fossil fuels in particular. This includes the closure of coal and other mines and the closure of coal fired power stations. As the country moves to electricity that is sustainably generated, it will also impact those industries reliant on the use of petroleum and diesel as more use is made of electric vehicles and the like. Many workers will find themselves unemployed and communities will lose the source of their livelihood. Alternative employment opportunities will need to be developed in the new economy that emerges. This will require retraining and the development of new industries close to those that are being phased out.

The other challenges include the start-up capital costs of transitioning to green energy. The infrastructure required, the training and retraining of those involved to ensure that there is adequate maintenance of new systems, the employment of skilled workers to staff and build green energy systems using renewable sources.

The State needs to find ways to fund alternatives through a carbon tax, financial transaction taxes and a wealth tax. Those corporations and individuals who have and continue to make obscene profits through the continued use of fossil fuels and overconsumption at the expense of the planet and its people must be made to pay for the just transition to alternatives".

Strambo expressed that a general challenge, which is felt by South Africa and all countries moving towards a transition is "the limited capacities locally to implement just transition measures. [This includes] technical capacities [and] financial capacities [of] institutions. And also, at national level. I think that's a big issue, if we think for instance, of Colombia as a post-conflict case in, and in post-apartheid case, in South Africa, there is social fabric that is not conducive to find agreement and work together, which is a huge barrier".

## 4.4. ON HOW SOCIAL SECURITY COULD ENABLE A JUST TRANSITION

De Gasparis said that a basic income grant "would cushion the just transition, it would give support to it, it would create an environment and enabling environment for just transition". Taylor has contended that "in our contemporary post COVID, post-Colonial and globalised world we need to recognise that traditional approaches to social security are inappropriate in the context of structural unemployment, mass poverty, widening inequalities and environmental disasters. It is not possible to adopt a model of social security that assumes full employment because of the form of racial capitalism that existed and continues to dominate in South Africa and that excludes large parts of the black African population from skilled jobs. A social protection floor that includes health care, education, water, energy, sanitation and a basic income will provide the means for people to survive in dignity and bodily integrity. [...] Evidence shows us that basic income in the form of unconditional cash transfers results in significant impacts in reducing destitution and deprivation of the poorest as well as in increasing levels of consumption and

productivity. The local economic activity in increased consumption patterns leads to positive economic and social returns. Providing a basic income increases expenditure on essential food and household requirements within local economies. The multiplier effects in terms of individual, household and community local economic development are considerable. [...] South Africa has a human rights based constitution but the approach to social protection requires the gap in social provision of a basic income to be addressed. An enabling macro policy environment with systems in place for efficient implementation is essential to ensure that all citizens are able to meet their fundamental human needs. Legislation and regulations that guide the programme design and implementation and monitoring of social protection needs to be consistent with the rights and commitments established in our constitution. Our macro-economic policies and trade policies should not only focus on economic growth and stabilisation. Compelling research evidence shows that when economic and social policy objectives are designed to work together they have the potential to stimulate local economic development and improve living standards. An enabling macro policy framework that integrates social and economic objectives could lay the basis for the progressive and phased realisation of the right to social protection with basic income and a just transition to a greener future".

Malusi has reasoned that social security needs to be understood and undertaken wider than simply cash transfers. "We need a broad package of items in this basket of measures that will make sure that indeed, we don't leave anybody behind in that transition. So, for example, if, you know, a coal fired power station is going to have to let go of particularly persons who are beyond the age of no beyond the age of 55, who are not necessarily amenable to take on new skills to participate meaningfully in the renewable energy sector. Those people could take up opportunities of, you know, having social security, but not just social security, access to social housing, and not just social housing, but access to quality health care, so that those people can have a quality life, even when they are not necessarily working and participating in the renewable energy sector. So those are the things we see as the interlinkages between you know, the physical, social security as well as that transition to a low carbon economy. I think that the two actually work very well together".



#### 4.5. ON VISIONS FOR A JUST TRANSITION IN SOUTH AFRICA

Burton contended that a just transition in South Africa would need to be "both forward looking and backward looking. So you want to have you want to manage the workforce transition, and you want to have economic diversification. You want to have service delivery and, and social policy as part of that [in the form of] social grants. The workforce, service delivery, and social protection, economic diversification. So, all of those elements need to be in there. I mean, obviously, my work has been very heavily focused on coal and trying to understand kind of the regional, what would what, how would you manage this in a regional manner for place like, and for millennia, that's very dependent on coal. And clearly, you want to develop new competitive advantages to a kind of change that challenges the dependence on coal."

Taylor reasoned that "part of the transition to a just society and greener future must include a social protection system with a basic income to assist people from falling into deeper poverty or becoming vulnerable to risks and contingencies arising from natural disasters, crop failure, accidents, unemployment and illness. Such a system must enhance the capabilities of individuals, communities and institutions to participate in all spheres of activity in our society and move us away from excluding and marginalising the majority. Social protection with a basic income can help to reduce inequities and vulnerabilities through changes in policies, laws, budgetary allocations and redistributive measures that promote a sustainable and greener future. This will be transformative. Social protection can also have a developmental and generative function by increasing consumption patterns of the poor, promoting local economic development and enabling poor people to access economic and social opportunities. We need to ensure that the benefits reach those who ought to receive social protection. We also need effective implementation, monitoring, and accountability systems in place."



Ngam argued that "we also need to look at a just energy transition from different perspectives, from the way we build houses, from the way we produce our food. And rural communities also need to be involved, to have electricity for other purposes, for irrigation, for education, for community schools, and community, playgrounds and so on. One of the reasons for the high crime rates and rape and so on that you have in some communities is because after 6pm, it goes completely dark. And people are really unsafe and they cannot move about freely and they have no form of entertainment and so on. All of that needs to be factored into a just transition. At the same time, just transition debates in South Africa have not necessarily been appropriately litigated by all stakeholders".



To conclude: there are myriad challenges in bringing about a just energy transition in South Africa, but there is also a great deal of potential. Policy must be informed by integrating climate change mitigation strategies with the massive inequalities and poverty crisis that South Africa faces. The transition to green energy has to be just. In other words, it has to minimise job losses, as well as measures to re-train with new skills, communities which will suffer the most from unemployment. The proposed social security system, the universal Basic Income Grant, in respect of the above will be crucial. The BIG, which is gaining in more, rather than less popularuty, must be promoted and viable proposals as to how it can be funded must be further motivated for at the intersection between research and advocacy. The SPI is one of the organisations in South Africa at forefront of this. The most vulnerable in society, i.e. unemployed class, black, women and young people, have to be incorporated into a social security system, for example with the BIG and then to be part of the policy shifts to renewable energy, environmental sustainability and poverty alleviation. A BIG would aid a just transition and one concrete and short-term measure could be a just transitions levy on energy companies using fossil fuels to contribute to a BIG fund. All of the above requires some minimal consensus between the main actors in society: governing parties, unions, opposition parties and environmental lobby groups and NGOs, international alliances, as well as locally the necessary political will, policy shifts and implementation.

#### **REFERENCES:**

- 1 Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S., Lambin, E. F. et al (2009). A safe operating space for humanity. nature, 461(7263), 472–475. doi:10.1038/461472a
- <sup>2</sup> IPCC. 2021d. "Summary for Policymakers. In Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Geneva: IPCC.
- 3Rockström, J., Steffen, W., Noone, K., Persson, Å., Chapin, F. S., Lambin, E. F. et al (2009). A safe operating space for humanity. nature, 461(7263), 472–475. doi:10.1038/461472a
- <sup>4</sup> Willis, A. (2021) Investigating The Net Employment Impacts of Renewable Energy In South Africa, Master dissertation submitted to Delft University of Technology in partial fulfilment of the requirements for the degree of Master of science in Engineering and Policy Analysis Faculty of Technology, Policy and Management.
- 5 Ibid
- 6 International Labour Organisation. (2019). Skills for a greener future: key findings. Available at https://www.ilo.org/skills/projects/WCMS 709121/lang--en/index.htm. ILO, Geneva, Switzerland.
- <sup>7</sup> Government of South Africa(2022) Department of International Relations and Cooperation http://www.dirco.gov.za/docs/2021/unfccc\_cop26\_1114.htm
- 8 Statistics South Africa(2022) Quarterly Labour Force Survey http://www.dirco.gov.za/docs/2021/unfccc\_cop26\_1114.htm
- 9 Mulaisi, L. and Mabasa,K. (2022) Labour Market Shifts and Collective Bargaining in the Just Transition
  in Presidential Climate Commission(2022) Expert Perspectives: Supporting a Just and Climate-Reliant
  Transition in South Africa
- 10 World Bank (2022) Inequality in Southern Africa: An assessment of the South Africa Customs Union. Available at: https://documents.worldbank.org/en/publication/documentsreports/documentdetail/099125303072236903/p1649270c02a1f06b0a3ae02e57eadd7a82
- <sup>11</sup> Winkler, H., and Black, A. (2021). Policy options for employment intensive and low emissions development in South Africa. SARChI Industrial Development Policy Brief Series PB 2021-02. SARChI Industrial Development, University of Johannesburg.
- 12 Ibid
- 13 https://www.industriall-union.org/south-african-unions-call-for-a-just-transition-to-renewable-energy
- <sup>14</sup> Willis, A. (2021) Investigating The Net Employment Impacts of Renewable Energy In South Africa, Master dissertation submitted to Delft University of Technology in partial fulfilment of the requirements for the degree of Master of science in Engineering and Policy Analysis Faculty of Technology, Policy and Management
- 15 Ibid
- 16 Taylor, V. (2011) Social Protection: responding to risk vulnerability and social exclusion.
- <sup>17</sup> Winkler, H. and Black, A. (2021). Creating employment and reducing emissions: Options for South Africa. SARChI Industrial Development Working Paper Series WP 2021-06. SARChI Industrial Development, University of Johannesburg
- 18 https://www.dailymaverick.co.za/article/2022-07-25-government-is-implementing-measures-toachieve-

#### long-term-energy-security-and-end-load-shedding-for-good/

- <sup>19</sup> Department of Social Development(2021) Social Security Review 2021: Evolution of Social Security in South Africa: An Agenda for Action. Pg 52
- 20 Just Transition Centre. (2017). Just Transition: A Report for the OECD. Retrieved from <a href="https://www.oecd.org/environment/cc/g20-climate/collapsecontents/Just-Transition-Centre-reportjust-transition.pdf">https://www.oecd.org/environment/cc/g20-climate/collapsecontents/Just-Transition-Centre-reportjust-transition.pdf</a>
- <sup>21</sup> García-García, P., Carpintero, Ó., & Buendía, L. (2020). Just energy transitions to low carbon economies: A review of the concept and its effects on labour and income. Energy Research & Social Science, 70, 101664. doi:10.1016/j.erss.2020.101664
- <sup>22</sup> Ward,M.(2018) Just transitions and the Green Economy: Navigating the Fault Lines. University of the Witwatersrand, Centre for Researching Education and Labour.
- <sup>23</sup> García-García, P., Carpintero, Ó., & Buendía, L. (2020). Just energy transitions to low carbon economies: A review of the concept and its effects on labour and income. Energy Research & Social Science, 70, 101664. doi:10.1016/j.erss.2020.101664
- 24 Ibid
- 25 Ibid
- 26 Ibid
- <sup>27</sup> Tomassetti, P. 2020. "From Treadmill of Production to Just Transition and Beyond." European Journal
- of Industrial Relations 26, no. 4: 439-57.
- <sup>28</sup> United Nations Environment Programme). 2008. Green jobs: Towards decent work in a sustainable, low-carbon world
- 29 https://www.worldwildlife.org/stories/what-s-the-difference-between-climate-change-mitigationand-adaptation
- 30 The Intergovernmental Panel on Climate Change (IPCC) Working Group II (WGII) "Climate Change 2022: Impacts, Adaptation and Vulnerability", February 2022
- 31 IPCC(2022) Climate Change 2022: Impacts, Adaptation and Vulnerability
- 32 Ibid
- зз lbid
- з4 **lbid**
- 35 García-García, P., Carpintero, Ó., & Buendía, L. (2020). Just energy transitions to low carbon economies: A review of the concept and its effects on labour and income. Energy Research & Social Science, 70, 101664. doi:10.1016/j.erss.2020.101664
- <sup>36</sup> Mulaisi, L. and Mabasa,K. (2022) Labour Market Shifts and Collective Bargaining in the Just Transition in Presidential Climate Commission(2022) Expert Perspectives: Supporting a Just and Climate-Reliant Transition in South Africa
- <sup>37</sup> Ward,M.(2018) Just transitions and the Green Economy: Navigating the fault Lines. University of the Witwatersrand.
- 38 Ibid
- 39 Ibid
- 40 García-García, P., Carpintero, Ó., & Buendía, L. (2020). Just energy transitions to low carbon

economies: A review of the concept and its effects on labour and income. Energy Research & Social Science, 70, 101664. doi: 10.1016/j.erss.2020.101664

- 41 Ibid
- 42 Ibid
- 43 Ibid
- 44 Ibid
- <sup>45</sup> Young, J. (1998). Just Transition: A new approach to jobs v. environment. Working USA, 2(2), 42–48. doi: 10.1111/j.1743-4580.1998.tb00090.x
- 46 C.A. Miller, A. Iles, C.F. Jones (2013) The social dimensions of energy transitions, Sci. Cult. (Lond) 22 (2013) 135–148, https://doi.org/10.1080/09505431.2013.
- <sup>47</sup> IPCC, Special report on renewable energy sources and climate change mitigation 2011 New York.
- <sup>48</sup> García-García, P., Carpintero, Ó., & Buendía, L. (2020). Just energy transitions to low carbon economies: A review of the concept and its effects on labour and income. Energy Research & Social Science, 70, 101664. doi:10.1016/j.erss.2020.101664
- <sup>49</sup> Mulaisi, L. and Mabasa,K. (2022) Labour Market Shifts and Collective Bargaining in the Just Transition in Presidential Climate Commission(2022) Expert Perspectives: Supporting a Just and Climate-Reliant Transition in South Africa
- 50 García-García, P., Carpintero, Ó., & Buendía, L. (2020). Just energy transitions to low carbon economies: A review of the concept and its effects on labour and income. Energy Research & Social Science, 70, 101664. doi:10.1016/j.erss.2020.101664
- <sup>51</sup> Ward,M.(2018) Just transitions and the Green Economy: Navigating the fault Lines. University of the Witwatersrand
- 52 Konstant, T., Gustafson, R. and Unnbom, C. (2021) A Just Transition for the Global South: Learning from Alliances and Movements in South Africa and the Philippines. SOLIDAR and Olof Palme International Center, December 2020; García-García, P., Carpintero, Ó., & Buendía, L. (2020). Just energy transitions to low carbon economies: A review of the concept and its effects on labour and income. Energy Research & Social Science, 70, 101664. doi:10.1016/j.erss.2020.101664 and in the Philippines
- 53 Ibid
- 54 Ibid
- 55 Just Transition Research Collaborative (2018) Mapping Just Transition(s) to a Low- Carbon World, Geneva, <a href="http://www.rosalux-nyc.org/wp-content/files">http://www.rosalux-nyc.org/wp-content/files</a> mf/reportjtrc2018 1129.pdf.
- 56 Ibid
- <sup>57</sup> García-García, P., Carpintero, Ó., & Buendía, L. (2020). Just energy transitions to low carbon economies: A review of the concept and its effects on labour and income. Energy Research & Social Science, 70, 101664
- 58 IPCC(2022) Climate Change 2022: Impacts, Adaptation and Vulnerability
- 59 **Ibid**
- 60 Ibid.
- 61 Pegals, A. (2017) Chapter 11: Germany: The Energy Transition as a Green Industrial Development Agenda, in Altenburg, T., & Assmann, C. et al (2017). Green Industrial Policy. Concept, Policies,

Country Experiences. Geneva, Bonn: UN Environment; German Development Institute / Deutsches Institut für Entwicklungspolitk (DIE)

62 Ibid

63 Hillebrand, B., Buttermann, H. G., Behringer, J. M., & Bleuel, M. (2006). The expansion of renewable energies and employment effects in Germany. Energy Policy, 34(18)

64 Ibid

65 Ibid

66 Ibid.

67 Pegals, A. (2017) Chapter 11: Germany: The Energy Transition as a Green Industrial Development Agenda, in Altenburg, T., & Assmann, C. et al (2017). Green Industrial Policy. Concept, Policies, Country Experiences. Geneva, Bonn: UN Environment; German Development Institute / Deutsches Institut für Entwicklungspolitk (DIE)

68 Lehr, U., Ulrich, P., Lutz, C., Thobe, I., Edler, D., O'Sullivan,

- M., Simon, S., Naegler, T., Pfenning, U., Peter, F., Sakowski, F., & Bickel, P. (2015). Beschäftigung durcherneuerbare Energien in Deutschland: Ausbau und Betrieb, heute und morgen
- 69 Nestle, U., & Morris, C. (2016). Das EEG: Besser als sein Ruf. WISO direkt: 2016/14. Bonn: Friedrich-Ebert-Stiftung.
- 70 Prognos. (2015). Wertschöpfungs-und Beschäftigungseffekte der Energiewirtschaft: Studie im Auftrag des Bundesministeriums für Wirtschaft und Energie, Projektnummer 49/13. Basel.
- 71 Atteridge, A and Strambo, C. (2020) Seven Principles to Realise a Just Transition to a Low-Carbon Economy. Stockholm Environment Institute(SEI), Sei Policy Report June 2020, available at <a href="https://www.sei.org/wp-content/uploads/2020/06/seven-principles-for-a-just-transition.pdf">https://www.sei.org/wp-content/uploads/2020/06/seven-principles-for-a-just-transition.pdf</a> 72 lbid.
- 73 Atteridge, A., Blanco, I., and (EBRD) Strambo, C. (2020)
- 74 Baloyi, Lehmann-Grube, et al. (2022) Transformative Resilience as the Centrepiece of a Just Transition in Presidential Climate Commission(2022) Expert Perspectives: Supporting a Just and Climate-Reliant Transition in South Africa
- 75 Fine, B., & Rustomjee, Z. (1996). The Political Economy of South Africa: From Minerals–Energy Complex to Industrialisation (1st ed.). Routledge. https://doi.org/10.4324/9780429496004 76 Winkler, H., and Black, A. (2021). Policy options for employment intensive and low emissions development in South Africa. SARChI Industrial Development Policy Brief Series PB 2021-02. SARChI Industrial Development, University of Johannesburg.
- 77 Baloyi, Lehmann-Grube, et al. (2022) Transformative Resilience as the Centrepiece of a Just Transition in Presidential Climate Commission(2022) Expert Perspectives: Supporting a Just and Climate-Reliant Transition in South Africa
- <sup>78</sup> Baloyi, Lehmann-Grube, et al. (2022) Transformative Resilience as the Centrepiece of a Just Transition in Presidential Climate Commission(2022) Expert Perspectives: Supporting a Just and Climate-Reliant Transition in South Africa

79 Ibid

80 IPCC. 2022). "Climate Change 2022: Impacts, Adaptation and Vulnerability." In IPCC WGII Sixth Assessment Report. Geneva: IPCC.

81 Ibid.\

82 National Planning Commission(NPC), 2011: Our future - make it work: National development plan 2030. National Planning 27 Commission, The Presidency, Republic of South Africa, Pretoria, 28 http://www.npconline.co.za/pebble.asp?relid=757 accessed 30 July 2022. 83 IPCC. 2022). "Climate Change 2022: Impacts, Adaptation and Vulnerability." In IPCC WGII Sixth Assessment Report. Geneva: IPCC 84 NPC, 2011: Our future - make it work: National development plan 2030. National Planning 27 Commission, The Presidency, Republic of South Africa, Pretoria, 28 http://www.npconline.co.za/pebble.asp?relid=757 accessed 30 July 2022 85 Ibid 86 Ibid 87 Ibid 88 Ibid 89 Ibid 90 Ibid 91 Ibid 92 Ibid 93 Ibid. 94 Atteridge, A., Burton, J. and Strambo, C. (2020) The End of Coal? Planning a Just Transition in South Africa. 95 Ibid 96 Ibid 97 Ibid 98 Ibid 99 Ibid 100 lbid 101 Ibid 102 Willis, A. (2021) Investigating The Net Employment Impacts of Renewable Energy In South Africa, Master dissertation submitted to Delft University of Technology in partial fulfilment of the requirements for the degree of Master of science in Engineering and Policy Analysis Faculty of Technology, Policy and Management 103 Ibid 104 IndustriAll. (2018). South African unions call for a Just Transition to renewable energy. Retrieved 30/07/2022 from http://www.industriall-union.org/south-african-unions-call-for-a-just-transition-torenewableenergy 105 COSATU (Congress of South African Trade Unions). 2012. A Just Transition to a Low-Carbon and Climate Resilient Economy: A Call to Action. Johannesburg: COSATU. 106 Mulaisi, L. and Mabasa, K. (2022) Labour Market Shifts and Collective Bargaining in the Just Transition in Presidential Climate Commission(2022) Expert Perspectives: Supporting a Just and Climate-Reliant Transition in South Africa 107 COSATU(2022) Just Transition Blueprint for Workers, Summary document 108 Ibid

109 Ibid

```
110 lbid
111 Ibid
112 Godfrey-Wood, R., and B.C.R. Flower. 2017. "Does Guaranteed Employment Promote Resilience
to Climate Change? The Case of India's Mahatma Gandhi National Rural Employment Guarantee Act
(MGNREGA)." Development Policy Review 36: O586-O604, doi:10.1111/dpr.12309.
113 Bahadur, A.V., K. Peters, E. Wilkinson, F. Pichon, K. Gray and T. Tanner. 2015. "The 3As: Tracking
Resilience across BRACED." BRACED Knowledge Manager Working Paper. London: Overseas
Development Institute.
114 International Trade Confederation(ITUK)(2018) Economic and Social Security Brief: The Role of
Social Protection in Just transitions, available at https://www.ituc-csi.org/Social-Protection-in-a-Just-
Transition
115 Social Policy Initiative(SPI)(2022) Monitoring the Right of Access to Social Security and
Appropriate Social Assistance in South Africa
116 The Presidency (2015) Twenty Year Review South Africa 1994 – 2014 Background Paper: Social
Protection. Pretoria: The Presidency Available
at:https://www.dpme.gov.za/publications/20%20Years%20Review/Pages/Synthesized-Reports.aspx
117 Wave 5 National income Dynamics Study Coronavirus Rapid Mobile Survey (NIDS-CRAM)
(2021)Available at:https://cramsurvey.org/reports/#wave-5
118 Ibid.
119 UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No. 19: The
right to social security (Art. 9 of the Covenant), 4 February 2008, E/C.12/GC/19, available at:
https://www.refworld.org/docid/47b17b5b39c.html [accessed 31 July 2022] para 1
120 National Treasury (2020a) Budget Review 2020. Pretoria: National Treasury. Available at:
http://www.treasury.gov.za/documents/national%20budget/2020/default.aspx
121 SPI(2022) A Basic Income Grant for South Africa: The evolution of Social Assistance Since 1994
122 International Labour Organisation (ILO) (2022) World Social Protection Report 2020 – 2022 Social
Protection at the Crossroads – In Pursuit of a Better Future Available at
https://www.ilo.org/global/publications/books/WCMS_817572/lang--en/index.htm
123 International Trade Confederation(ITUK)(2018) Economic and Social Security Brief: The Role of
Social Protection in Just transitions, available at https://www.ituc-csi.org/Social-Protection-in-a-Just-
Transition
124 Ibid
```

125 Ibid

126 Ibid

127 Ibid

128 **Ibid** 

129 **Ibid** 

130 Ibid

131 https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco