

FEDUSA



October 2021



Climate Change Policy

There is NO Planet B.



**There are NO jobs
on a dead Planet**

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FOREWORD

CLIMATE CHANGE: A TRADE UNION ISSUE

Climate action is a trade union issue. We have a vital role to play to protect jobs in existing workplaces and industries by demanding industrial transformation, to organize new quality jobs in the emerging green economy and to fight for the Just Transition measures that ensure we leave no one behind.

Everyone is coming to understand that climate change is happening, and we need to act urgently to prevent it spiraling into a planet that humans and other species cannot survive on. Some turning points have already been passed, and we must build resilience in the face of climate impacts. Since human activities are the cause of climate change, it is in our hands to avert the worst.

A transition to a low-carbon and climate-resilient economy is essential within the country and globally, sooner rather than later. It must be a fair, phased, and managed transition to ensure it does not create economic disruption and hardship for workers and poorer people.

Not only on the climate front, but there are also many ways in which our current economic systems and patterns of production and consumption do not serve human wellbeing. In tackling the climate crisis, we can also work to build a better world. Decent work and a decent life for all.

Starting in 2018, FEDUSA has stepped into its historical responsibility to provide leadership for the federation, affiliates, members, and the country on climate change. This policy is the foundation for taking forward our climate change work and advocacy and engaging in processes of the transition.

We cannot correct the climate errors of the past, but we are here and can act now.



Jacques Hugo
Vice President : Development

If Not Us, Then Who?
If Not Now, Then When?



KNOW THE FACTS

The impacts of climate change due to global warming are upon us, and the science has long been clear that this is caused by the amount of greenhouse gas emissions from human activities that exceed what natural land and marine systems can reabsorb.

Aug | 2021

The United Nations' Intergovernmental Panel on Climate Change (IPCC) is working on its 6th Assessment Report and released the first chapter on 'The Physical Science Basis' in August 2021, along with a 'Regional fact sheet – Africa'. This reflects the latest science on the biophysical impacts of climate change.¹

1.2 °C ^

In 2020 we were already at 1.2 degrees Celsius (°C) average global increase over pre-industrial temperatures, the base year being 1880.¹ In South Africa, average annual temperatures have increased at least one-and-a-half times the global average increase over the last 50 years. Every part of a degree matter, as is clear from the scientific report 'Global Warming of 1.5°C: An IPCC Special Report'.¹

2040

The science tells us that action to decrease climate emissions needs to be swift and result in deep cuts if we are to stabilise at 1.5°C. Globally we will have to halve emissions by 2040 and get to net zero by mid-century.¹



TOP 20

South Africa is consistently among the top twenty emitting countries in the world, although there is a very sharp drop down from the top emitters China, the United States and Europe.

South Africa is responsible for about 1% of global carbon dioxide emissions, currently per year (1.31% in 2017)¹ and also if one adds up its carbon dioxide emissions since the 1880s (1.25% over 1884–2019).¹

Globally, there is a low-carbon transition underway, too slowly but it is snowballing. Investors and the finance sector are shifting out of fossil fuels. Countries that South Africa trades with are implementing measures to reduce their national emissions and protect their own economies – the European Union’s Carbon Border Adjustment Mechanism is an example.¹

May | 2021 - Carbon Price

As of May 2021, 37 national and 27 subnational jurisdictions have put a ‘carbon price’ on greenhouse gas emissions, and these include key export destinations for South African minerals and goods.¹ Industrial and individual customers want lower-carbon products. These trends affect manufacturing in South Africa, our exports, investment in our carbon-intensive economy, and work and employees.

Human - Centred Approach to Future Work

Climate-related transitions coincide with other drivers of new economic activities and labour shifts, such as the Fourth Industrial Revolution, and the shift from the ‘proletariat’ (shop floor factory workers) of industrialisation to the ‘precariat’ (casual, temporary, or self-employed workers) of the 21st century labour market.¹ Changes and desired outcomes in the world of work were investigated by the International Labour Organisation’s Future of Work Initiative launched in 2015. The Initiative probed work and society, decent jobs for all, the organisation of work and production, and the governance of work.¹ It ended in 2019 with a Centenary Declaration which states that we need to invest in people through a human-centred approach to the future of work, to create a just and sustainable future.

That means investing in jobs, skills, and social protection, and supporting gender equality. It means strong organised labour to ensure wages are adequate, working hours are fair, and safety and health as well as other rights at work are maintained. And it means adopting government policies that create enabling conditions for sustainable enterprises, a flourishing economy and decent work for all.¹



The level and kinds of changes to deal with and minimise the climate crisis will require fundamental changes to production and consumption patterns, and to the structure of South Africa's economy.

While South Africa is an emerging economy, we have deep levels of inequality, poverty and unemployment. Any economic transition must be managed to address these economic injustices. With such high unemployment, government and business must support and implement the most job-intensive approaches in work processes. Job creation is an opportunity to bring more women into the workforce, who should be paid equal pay for equal work. When more people have money, this can drive consumption-led economic development, which in turn supports taxes and companies.

The principle of countries taking action according to their 'common but differentiated responsibilities and respective capabilities' must prevail in geopolitics and countries' climate-related actions. South Africa is entitled to its share of financial, technological, and capacity-building support from the international community for the transition, and Loss and Damage support, and must improve its ambition to do its fair share of the global effort required to stabilise at 1.5°C, as measured by the Climate Equity Reference Calculator and Climate Action Tracker.¹

Biophysical climate change impacts affect poorer people worse because they do not have money to spare to put coping measures in place or to move. They cannot afford expensive bottled water or rising prices of food when companies raise prices in the face of climate pressures on water and agriculture. They rely upon state health care and other service delivery. When climate disasters destroy their homes and livelihoods, they don't have money to easily start again. Women are in general poorer than men. In South Africa as of 2020, around 38% of households are headed by women, and these households are about 40% poorer than those headed by men. Working women earn on average 23% to 35% less than men (compared to the global pay gap of 20%). 48% of female-headed households support extended family members, while 23% of male-headed households do the same.¹ Stereotyped gender expectations placed upon men to provide for and protect their family's mean they feel deeply demoralised when they cannot.

Climate change has negative consequences for both men and women. But the biophysical effects of climate change and the transition will in general impact women and men differently, because of their socio-economic positions, the norms of society, and unequal power dynamics that overall favour men. Also, men and women may have different strategies and opportunities for adaptation and recovery. Women are often at the frontline of coping with these impacts, because it is seen as women's responsibility to fetch water, cook, clean, look after children, and care for the sick and elderly. These unpaid responsibilities limit women's ability to gain paid employment or restrict their advancement in the workplace, which means they may be financially dependent upon men and don't get benefits like pensions. Women are more excluded from decision-making spaces and processes. These lacks of income and power then limit the resources women have to adapt to climate change and transition impacts.¹

A few examples of biophysical effects of climate change and knock-on effects of those, and how they might impact women differently to men:ⁱ

| Climate change effects: Direct | Examples | Potential impact on women |
|--|--|---|
| <ul style="list-style-type: none"> Increased ocean temperature, changed current patterns, sea level rise, ocean acidification and deoxygenation | <ul style="list-style-type: none"> Increasing coral bleaching due to heat stress deoxygenation Marine species are moving to different coasts and marine areas | <ul style="list-style-type: none"> Jobs, livelihoods and food Workers in the fisheries industry and its supply chains, small-scale fishers and subsistence fishers are impacted, and women among them and in fisher households. There are resources looking at gender aspects.ⁱ Can damage the coastal tourism industry. On land, floods, droughts, species death, and epidemics also damage tourism. In South Africa in 2018 direct tourism job were split 60/40 to men/women.ⁱⁱⁱ |
| <ul style="list-style-type: none"> On average, less rain Increased drought and water shortage^{iv} | <ul style="list-style-type: none"> Severe droughts since 2015 in Free State, Eastern Cape and other areas^v Cape Town's Day Zero drought in 2018 | <ul style="list-style-type: none"> Workload Women and girls are often the primary collectors, users and managers of household water. Less available water will increase their workloads and jeopardise family livelihoods. Opportunities This leads to lower school enrolment for girls, and less opportunity for women to do income-generating activities. |
| <p>Extreme weather events:</p> <ul style="list-style-type: none"> Greater intensity and number of cyclones^{vi}, heavy downpours and floods, and heat waves Higher average wind speeds Increases in fire weather conditions^v | <ul style="list-style-type: none"> January 2021 Cyclone Eloise hit Mpumalanga, Limpopo and KwaZulu-Natal^{ix} May 2021 flood in Western Cape^x November 2020 heatwave in KZN^{xi} | <ul style="list-style-type: none"> Deaths A sample of 141 countries over 1981– 2002 found that natural disasters (and the resulting impacts) kill more women than men on average, or kill women at an earlier age than men, due to their socio-economic position not physical differences^{xii} |



| Climate change effects: Indirect | Examples | Potential impact on women |
|--|---|--|
| <ul style="list-style-type: none"> Decreased crop production^{xiii} | <ul style="list-style-type: none"> In Africa, crop yields are expected to decline 20–50% in response to changed climate conditions | <ul style="list-style-type: none"> Food Rural women produce half the world's food, and 60–80% in most developing countries. In Africa, climate-related crop changes could affect from 48% of women in Burkina Faso, to 73% in Congo. Adopting new ways to farm is harder for poorer, female-headed or disease-infected households. |
| <ul style="list-style-type: none"> Loss of species | <ul style="list-style-type: none"> By 2050, climate change could result in a species extinction rate from 18–35% | <ul style="list-style-type: none"> Resilience Women subsistence growers may often rely on crop diversity to adapt to climate variability. Permanent temperature change will reduce crop and traditional medicine options, affecting food security and health. |
| <ul style="list-style-type: none"> Spread of diseases to new areas Increased epidemics | <ul style="list-style-type: none"> See Department of Environment's Factsheet 5 on 'Climate Change and Human Health' National Institute for Communicable Diseases is researching the spread of malaria | <ul style="list-style-type: none"> Health and nursing Women's workloads increase when they have to spend more time caring for the sick. Poorer households affected by HIV/AIDS, malaria or Covid-19 have few resources to adapt to climate effects. |

As a result of differences in the social and economic positions of women and men, in general they may have different vulnerabilities and resilience's in the face of disasters, including climate disasters.^{xvi}

| Gender differences in vulnerability and adapting to disasters | | |
|---|---|--|
| Gendered... | Women | Men |
| <ul style="list-style-type: none"> ... disparities that increase risks in disasters | <ul style="list-style-type: none"> Higher levels of poverty Extensive responsibilities of caring for others Domestic violence Traditional women's occupations | <ul style="list-style-type: none"> Work away from home and community Internalised norms of masculinity Roles in the family and home |
| <ul style="list-style-type: none"> ... experiences that can increase capacities for managing disaster situations | <ul style="list-style-type: none"> Social networking Caring abilities Extensive knowledge of communities Management of natural and environmental resources High levels of risk awareness | <ul style="list-style-type: none"> Professional and work contacts Technical abilities Limited childcare responsibilities |



FEDUSA has demonstrated its commitment to gender equality, and to resolving many of the gender issues raised in this policy, by coming out in support of the 'Generation Equality:

Women's Right for An Equal Future'
theme for Women's Day in 2021.

The theme aligns South Africa to global efforts aimed at achieving gender equality by 2030



Climate changes and the low-carbon transition is affecting every sector of South Africa's economy.

Most vulnerable to negative impacts on livelihoods and jobs are those that depend directly on natural systems such as agriculture, fisheries, and tourism; and value chains that are very high emitting such as coal, petroleum-based transport, and metals.^{xvii}

Issues and developments in the sectors of water, mining, electricity, and transport were explored in a set of FEDUSA booklets and workshops over the period December 2020 to June 2021. There are solutions in each of these sectors, but if we don't implement them, our economy and employees in these sectors will be left stranded.

We must not become so busy with shrinking certain economic activities and technologies that pose a risk to the climate and the economy, that we lose sight of the imperative to hatch and grow a labour-intensive and climate-smart economy at the same time. This is likely to involve sectors beyond the vulnerable ones, and new jobs may be in different sectors to those where jobs shrink, for example in construction, agriculture, and services.

The low-carbon and climate-resilient transition, and other transitions in the world of work, must be a just transition. 'Just transition' means different things to various groups, from a worker-focused transition, to a deep social and economic transformation^{xviii} – or, for some companies, merely paying lip service as a marketing tactic and a form of 'greenwashing'. A dimension of a just transition must be to address gender inequity intentionally and actively, which will not dissolve just because there's a transition. To this end, women must be adequately represented in decision-making processes relating to the transition.

FEDUSA and its affiliates primary mandate is to defend the interests of members, both in the sectors most vulnerable to climate change biophysical and transition impacts, and in being proactive in equipping workers for the emerging low-carbon and climate-resilient economy. Thus, at a minimum, FEDUSA stands for a worker-focused transition which makes sure that employees in high-emitting sectors can enter other jobs and have a social protection safety net; and for equipping the workforce for 'green' or 'climate-smart jobs'.

As a federation with influence at NEDLAC, in the Presidential Climate Commission and other significant national decision-making forums, and within sector-specific forums, FEDUSA also has an important broader role to play in ensuring the wellbeing of all residents and the health of our economy.

The National Planning Commission's programme '2050 Vision and Pathways for a just transition to a low- carbon, climate-resilient economy and society' achieved a high degree of consultation and agreement, although not everyone agreed about everything.

For a broader socio-economic transition, we can build on its Vision for 2050 and for the 2050 end states in the arenas of water, land use and energy, these being identified as the key arenas for justice.



FEDUSA HEREBY RESOLVES TO:

Support a goal of a net zero economy by 2050 and will take action to help bring this about through a just transition.

Include fostering solidarity between women and men, unions and poorer communities, between labour federations and unions both within South Africa and around the world, and across borders (nationalistic and xenophobic responses to climate change will only make matters worse). Women and the unemployed (most of whom are women in low-income communities) cannot transition from jobs they don't have; thus, this solidarity extends to advocating greater employment overall and women's entry into the workplace. In 2020, 48.7% of working-age women had jobs or were actively looking for jobs (this is called "labour force participation"), while for men it was 60.7%.

Acknowledge that the world of climate change is the one we live in now. Everything humans do must contribute to reducing greenhouse gas emissions or at least not increasing them and must serve to strengthen resilience. Hence all infrastructure build, government policy, and industry and company plans, must integrate climate change considerations. Economic recovery from the impacts of Covid-19 lockdowns must be greened. The federation will promote this through NEDLAC, and in industry and bargaining forums.

Government must set up a national Just Transition Fund, managed by Treasury or the DBSA to avoid corruption. The cost of a just transition for coal workers is calculated to be R6 billion over 20 years, including compensation, retraining, relocation, and regional economic development and rehabilitation.^{xix} Implementing other elements of a just transition will need more than this.

Resources to fund a just transition can be sourced from:

Redirecting South African government subsidies to fossil fuel industries, found to total R31 billion in 2017, mostly on coal and petroleum

The Skills Development Levies for retraining workers

Coal mining companies' Social and Labour Plans, and financial guarantee for rehabilitation under the Mineral and Petroleum Resources Development Act, must be used for their intended purpose which can also serve a just transition

The most effective way to bolster the climate resilience of poorer people is to improve their income. At a human level, none of us find it acceptable that our fellows in South Africa starve and struggle to meet basic needs. In this regard, FEDUSA supports a Universal Basic Income Grant. Such a grant is also a way of paying for the economically important but unpaid household and care work done mainly by women. While we acknowledge that government coffers are under strain, there are many ways to fund such a grant.^{xix} For example, if the carbon tax was increased to a rate that competes with that of our trade partners, that would bring much-needed funds to the fiscus.

Affiliates will continue to bargain for better wages, housing subsidies, health provisions and pensions for members.

The best way to support women in being climate resilient is to improve the position of women in society and to promote pay parity. The worst aspect that threatens women and erodes their resilience (of any kind) is gender-based violence and sexual assault. FEDUSA has a proud record of advancing gender equity and strong positions, and we will continue to build on that and take up gender issues.^{xxi}

Climate change must be a focus in an early warning system comprising risk assessment, monitoring and predicting, disseminating and communicating warnings, and response. The system must integrate the South African Weather Service, the Department of Cooperative Governance and its National Disaster Management Centres in every province, and the Protection Services Departments in each municipality. Extreme weather events and wildfires are becoming more commonplace, thus preparing for and dealing with them needs to be 'business as usual'. Temporary workers and volunteers need to become permanent jobs.

Affiliates will engage employer bodies and Bargaining Councils, and shop stewards will engage employers, to:

Address climate change risks, adaptation and mitigation in the sector, business, and workplaces. This includes water-wise and energy-efficient operations, and 'greening' of jobs.

Reach agreement with management that some of the money saved by employees' behaviour that reduces water and energy costs is paid to employees as incentive bonuses.

Companies must be transparent about their plans for climate change adaptation and mitigation, and any planned changes to their business models. Companies' plans may affect working conditions, change processes and technologies, and involve restructuring or retrenchments. Then the union can strategize about what it can do. Unions should be involved in these plans from the start in order to shape plans, timing, and fair treatment of employees. We are not an afterthought, but part of generating solutions.

Negotiate education and training for workers in new technologies and skills that will be needed

Defend decent jobs and ensure new jobs are decent, using the ILO's understanding of decent work

Advance gender parity in the process

Women should be given an equal opportunity to enter new jobs and different kinds of jobs. Women are under-represented in certain kinds of jobs and many lack the more technical skills. For example, 42% of employed men were employed in manufacturing, construction and financial services in 2019, compared to 25% of employed women. In contrast, men are under-represented in jobs in community, social and personal services, and private households – only 18% of men work there, compared to 45% of women.^{.xxii}

Barriers to women's entry into paid work should be removed, for example the greater share of unpaid work carried by women. Across the world, 606 million working-age women (or 21.7%) perform unpaid care work on a full-time basis, compared to 41 million men (1.5%).^{.xxiii} In South Africa in 2010, men spent an average of 98 minutes per day on unpaid work, while women spent 229 minutes. Unpaid work includes household work, care of persons and community service.^{.xxiv} This unpaid work goes unacknowledged and is not included in GDP, yet it is the foundation upon which all paid work rests.

This work offers society the labour it needs, at the price of hampering women from getting into or advancing in paid work. A 2020 Oxfam study calculated that globally the unpaid care work by working- age women is worth at least \$10.8 trillion annually –three times the size of the world's tech industry.^{.xxv}

Within the workforce, very broadly women occupy more lower-skilled jobs, have worse working conditions, and are not well-represented at management and leadership levels. A good resource on women's position in the workforce and the issues is A quantum leap for gender equality: For a better future of work for all, an ILO publication.



Active Labour Market Policies

The transition to a low-carbon and climate-resilient economy must be managed so that no-one is left behind. This will require active labour market policies and social protection measures, which FEDUSA and affiliates will advocate at the various employers, Bargaining Councils, NEDLAC and to government. These may include:

| Aspect | Examples |
|---|---|
| Job and training placement schemes | Data bases of available jobs and learning opportunities and of work seekers |
| | Job and training placement centres, which consolidate advertised opportunities and help workers apply |
| Retraining for jobs in growing industries | Training for industries that are growing or could expand, for instance formal agriculture and food processing, construction, transport, work in renewable energy, recycling, healthcare |
| Income support during transition | <ul style="list-style-type: none"> - Unemployment insurance - Social grants - Comprehensive social security net to be created |
| | Retrenchment packages (minimum required under the Basic Conditions of Employment Act is one week per year of services; formal employers often give two) |
| Support for established and potential small, medium and micro-enterprises (SMMEs) | Incubators and extension services |
| | Financing and grants |
| | Assistance in identifying opportunities and developing business plans |
| Transition out of labour force | Early retirement and voluntary retrenchment packages |
| Social protection measures for the long-term unemployed | <ul style="list-style-type: none"> - Unemployment Insurance Fund (UIF) - Social grants - Public works schemes (like the Extended Public Works Programme) |

FEDUSA and affiliates will require SETA's to include skills related to 'greening' of jobs, climate change adaptation and mitigation, and for the new emerging 'green' and climate smart industries, in their Sector Skills Plans. Employers in high emitting sectors must use their Skills Development Levies to prepare employees for future job opportunities, and not only jobs in their own companies or sectors.

Going back to school, women and men are guided to gender stereotypical learning and work, and face discrimination when they go against the current. The climate transition is an opportunity to redress this to an extent. In training and skills development under the transition, there must be an explicit effort to train women for the more technical fields. FEDUSA will drive this with employer bodies and SETAs. Vice versa, men should be equipped to enter the fields where women dominate and to take over their fair share of unpaid household work.

BUILDING ORGANISED LABOUR

Affiliates will audit their members in terms of age, gender, skills, and other factors that are relevant for the transition. Unions can then be proactive and responsive to changes in their sector and workplaces.

FEDUSA and affiliates in vulnerable and high-emitting sectors will prepare as a fall back for a just transition retrenchment demands and plans to be used should the need arise. This will include reskilling for other work, and the company helping workers to set up cooperatives, and then actively support the cooperatives by buying from them.

FEDUSA will establish a process for passing members from one union to another when there are sector changes, so that members are not lost. In transfers to sectors where

FEDUSA has no interest in organising, we will engage unions from other federations to absorb our members.

Organised labour needs to lead on developing worker transition pathways, which are also socially just. FEDUSA will spearhead the development of a Just Labour Transition Centre in South Africa and reach out to other union federations on this.

The research officers of affiliates in vulnerable and high-emitting sectors will look into the NBI/BUSA 'Decarbonisation Pathways Aligned to Net Zero by 2050' and other relevant pathways studies. They will bring information together and analyse what jobs might be gained or lost, by who (including a gender profile) and prepare strategies ahead of time for what might be coming. The Sector Jobs Resilience Plans provide excellent ideas of what can be done in terms of livelihoods, jobs, and social protection and gender issues in the value chains of coal, metals, petrol-based transport, agriculture and tourism, which can also spark ideas for other sectors.^{xxiv}

FEDUSA and its affiliates will keep an eye on sectors where climate-smart job creation or growth may be developing, and proactively go and organise in those sectors and companies.

As a member of ITUC, FEDUSA and its affiliates can turn to the ITUC Just Transition Centre for resources, support and to connect with other unions and federations to share learnings and strengthen each other's voices. For similar reasons, affiliates will establish relationships with global unions or federations in their sector. FES has been an excellent strategic partner to FEDUSA on our climate change programme on many levels, and it's Just and Sustainable Socio-Economic Transformation programme also provides good resources and networks



WATER

The impacts of climate change are felt keenly in rainfall patterns and natural and engineered water supply systems, on top of the challenges we already have with water supply in the country. National government must prioritise spending on the Department of Water and Sanitation, which must live up to its slogan of ‘Water is life – sanitation is dignity’. Similarly, at municipal level, spending on water departments and infrastructure must be prioritised.

The Water Research Commission must guide the Department and municipalities on the best approaches and new technologies. Staff working in water supply must be trained on these, through the National School of Government, SETAs, SALGA and in-house training. Local manufacture of the technologies can create jobs.

Water supply starts and ends back with natural systems. Government’s Strategic Integrated Project 19 on Ecological Infrastructure for Water Security must be comprehensively implemented. SIP19 is about protecting, conserving, restoring, rehabilitating and maintaining the water source areas and natural water resources. The activities involved are job intensive.



MINING

We know that the low-carbon transition will affect coal mining negatively, and we must make means to deal with that. At the same time, the low-carbon transition also presents mining opportunities. As the use of fossil fuels declines, the demand for low-carbon technologies will grow.

The mining industry can be part of the low-carbon transition by providing the metals and minerals needed to construct and manufacture these technologies.xxvii

FEDUSA affiliates will engage the Minerals Council and others to explore the potential and plans for this in South Africa, involving unions and communities from the start. Instead of repeating errors of the past, FEDUSA will promote that it is important that this mining is done responsibly to avoid doing harm to workers, local communities, and the environment.





ENERGY MIX

Beyond Medupi and Kusile, no new coal-fired power plants should be built. This includes privately-owned electricity generation. Where cost-effective, existing coal power plants must be refurbished to lower emissions, both climate-causing emissions and those creating local air pollution which affects the health of workers and surrounding communities.

Renewable energy electricity generation, sustainable biofuels and the green hydrogen economy must be ramped up, in a job-intensive manner and with localisation of production along the value chains.

South Africa has vast potential for biofuels and the accompanying new jobs,^{xxviii} but FEDUSA raises a flag that this should not be allowed to displace agriculture for food. To be considered sustainable, biofuels must have a climate benefit, pose no risk to food and water security and local biodiversity, and respect workers' and communities' rights. To ensure this, there must be regulations using the Roundtable for Sustainable Biomaterials standards. Government's 2020 Biofuels Regulatory Framework is inadequate.

In the transition of the energy mix, rather than the exploitation of fossil fuel gas, FEDUSA prefers the extension of the lifespan of coal mines, coal-fired electricity plants and Sasol's coal-to-liquids plants. This gives more time for a just transition for workers in the coal value chain. It avoids the country embarking on a dead end of yet another fossil fuel and avoids the risk of a supposedly 'transition' energy carrier becoming a destination. In looking for quick-fix solutions, let us not repeat the fossil fuel mistakes of the past. The climate, water and ecosystem impact of expanding fossil gas extraction is irreversible, and the impacts upon surrounding communities including in neighbouring countries are very negative.^{xxiv}



PASSENGER TRANSPORT

Spatial planning that puts housing, workplaces, services, and amenities near to each other in economic development zones will reduce the cost of transport for the poor and workers and reduce emissions from passenger transport. Such zones can also be 'greened' through local renewable energy generation, water-wise features, and recycling.

Within passenger transport, the biggest reductions in emissions will come from the shift from private to public transport, and from one or two people in a vehicle to more travelling together in cars, minibus taxis, buses, or trains. FEDUSA affiliates can engage employers to put in place workplace "employee travel reduction programmes" which support such shifts with incentives or subsidised public or company transport; measures to ensure safety particularly for women walking from and to public transport stops; pool cars or bicycles at work for work trips; or facilitating working from home or sites closer to home for most office jobs.

The case for and benefits of public transport is captured in FEDUDA's Issues in Transport booklet. Public transport and minibus taxi services must meet the needs of the vast majority of South Africans that rely upon them to get around. They need to be much improved to be affordable, reliable, convenient and safe.^{xxx} Public transport and the minibus taxi industry employs over 500 000 workers,^{xxxi} not counting related enterprises such as vehicle manufacture and maintenance. Investment in public transport thus creates jobs, improves lives and reduces climate emissions. With people and companies in Covid-19 lockdown, the numbers riding on public transport dropped and so too the revenue. This is threatening the services. To protect, improve and increase public transport and the jobs it brings, the International Transport Workers' Federation and C40 Cities are driving a campaign called The Future is Public Transport.^{xxxii} FEDUSA will investigate joining this campaign.

Bicycles are emissions free. Local manufacture and maintenance of bicycles is an opportunity for SMMEs. Government programmes supporting SMMEs can look into this. Employers can assist retrenched workers to set up such businesses. Municipalities must create infrastructure for cyclists, and bike-share schemes of bicycles for public use such as found in other parts of the world.^{xxxiii}



FREIGHT TRANSPORT

FEDUSA's Issues in Transport booklet provides the Reduce–Shift–Improve dimensions for freight.

Growing industries and manufacturing within South Africa will create jobs and shorten supply chains, which also reduces emissions. FEDUSA supports efforts by government and businesses to industrialise the economy. This must be done in a manner that is job-intensive, creates decent jobs and is environmentally sound.

To grow companies and reduce emissions from international transport, affiliates will raise with employers and employer bodies the issue of buying more South African products and services. Union members are also encouraged to buy Proudly South African.

Within freight transport, we need to shift the greater part of cargo from road to rail. There must be a return to the system as it was before 1987, where cargo owners had to get a permit to carry freight on road instead of rail. For the sake of both passengers and freight, and to create jobs, government must invest heavily in rail infrastructure and maintenance, and local manufacture of trains and other equipment. FEDUSA and affiliates will engage Transnet on these matters.

With online shopping growing, we see an explosion of scooter and car deliveries. The drivers' jobs must be decent and safe. There is an opportunity for FEDUSA affiliates to organise among these workers.



TRANSPORT TECHNOLOGIES

The vehicle manufacturing, retail and repairs sectors provide many jobs and contribute much to the economy. The sectors need to respond to the global shift to electric vehicles or risk losing trade. FEDUSA welcomes that the Department of Trade, Industry and Competition and NAAMSA are developing a roadmap to production of electric vehicles, starting with the 'Auto Green Paper on the Advancement of New Energy Vehicles in South Africa'^{xxxiv}. The roadmap must incorporate labour from the start. FEDUSA affiliates in the sectors will meet with the Department, NAAMSA and the Electric Vehicle Industry Association to get understand the developments and get involved.

All new government-owned vehicles, public transport vehicles and minibus taxis should be electric vehicles. This will create a domestic market big enough to attract vehicle manufacturers to produce electric vehicles in South Africa.

POLICY ARENA

By merely implementing existing and already planned government policies and measures, the country can bring its greenhouse gas emissions down to 371 Mt by 2030, 34% down from its last reported 2017 emissions of 559 Mt. FEDUSA urges full implementation of the renewable energy component of the electricity supply Integrated Resource Plan 2019, Green Transport Strategy, biofuels mandate, Post-2015 National Energy Efficiency Strategy and solar water heater programme, all of which hold job creation potential.



CARBON TAX

FEDUSA welcomes that government is pricing carbon by means of a carbon tax and not a trading scheme. This allows carbon tax revenues to be used for better service delivery and a just transition. But continued corruption in government undermines this, and for the good of all FEDUSA will not rest on its anti-corruption Orange Friday Campaign.

The carbon tax is being revised for the next 5-year period starting in 2023. At the moment the tax rate is R120 per tonne of greenhouse gases emitted above a certain level. Various tax rebates bring that down to between R48/t and R6/t. If South Africa's export products are to compete in global trade, the tax rate must come closer to international trends. FEDUSA recommends that the tax rate be in line with the International Monetary Fund proposal of a minimum price of \$25/t (R366 on 9/8/21) for low-income emerging countries, and higher for more 'developed' countries. Further, the automatic rebate of 60–100% should fall away – the tax can't work if it is immediately cancelled by a rebate that every company gets.

Eskom has a public mandate to provide affordable electricity for all and it should not be carbon taxed, because its electricity generation emissions can be controlled through the Integrated Resource Plan.

Annex A: Vision and end states from National Planning Commission's '2050 Vision and Pathways'

programme: 2050 Vision for a just transition to a low-carbon, climate-resilient economy and society (co-ordinated by the National Planning Commission May 2018 to June 2019)

2050 Vision

Through putting people, especially those living in poverty and the vulnerable at the forefront, South Africa will have achieved a [zero-carbon / net-zero carbon] economy by 2050. We have built the resilience of our economy and our people through affordable, decentralised, diversely owned renewable energy systems; conservation of our natural resources; equitable access of our water resources and sustainable, equitable and inclusive land-use for all, especially for the most vulnerable. The high value we place on healthy ecosystems, land, water and air, underpins our future, and ensures a better life for all who live in South Africa.

Water end state

By 2050, water is recognized as a high value economic and social development resource by South Africa's people, institutions, policies, and water resource management structures – this includes all sources of water. Water pricing also reflects this value. People are at the center of South Africa's water solution – everyone can afford and access enough clean water. Joint planning between the country's social partners, including communities, is the norm. Implementation is incentivized (by affordable but cost-reflective prices; and universal access to safe, adequate water). Supply interruptions are eliminated by having well-maintained, climate-resilient infrastructure; proactive forward planning for more extreme climate events; and improved, decentralized governance. Water resource management decisions are decentralized to the most appropriate level and institutions are well capacitated to manage local, regional and national water systems. Strong governance will be in place and corruption will have been eradicated.

Land Use end state

By 2050, land use is sustainable, equitable and inclusive and thus tangibly contributes to a climate- resilient, [net zero/zero] carbon economy. To this end land is put to productive use and equitably shared. Intrinsically linked to the Water for All pathway, local ownership and policy support for sustainable and equitable land use mitigates the never-ending demand for water; land is productive, even in areas of low capital investments. Skills development means everyone can add value through increased land use-based jobs and social enterprises enabled by equitable access to land. The focus on urban land ownership is on access to decent urban housing, through densification that eases demand for safe and affordable public transport and other services. Agro-ecological methods of farming has led to food sovereignty, revitalization of ecosystems and reduced land-use based emissions. Collectively, these measures improve local air, water and land quality, thus increasing ecosystem services for inclusive use, and gradually reducing land use-based carbon emissions to zero, from the current baseline, by 2050.

Energy end state

By 2050, energy poverty is eradicated. This is achieved through enough and affordable renewable energy for all. The electricity supply industry is decentralized, and ownership is diversified, including community-owned or socially owned renewable energy. Local and district authorities are empowered to secure energy equity and independence for their residents and industries, and to transform the transport sector. Through a scaled up renewable energy program, including the value chain, employment creation and local manufacturing is increased. With this, decentralized systems and independent investment help us to achieve our zero carbon objectives. Inclusive transformation of the energy sector has been proactive, involving all social partners and particularly communities.

Annex B: Selected existing and planned government policies and measures that are relevant for greenhouse gas emissions

| Responsible government department | Policies and/or measures |
|-----------------------------------|---|
| | Renewable energy levy |
| | Electricity generation levy |
| | Hydrogen Fuel Cell Programme |
| | National Waste Management Strategy (NWMS) |
| Agriculture | Climate Change Adaptation and Mitigation Plan 2015 - Improved agricultural technology and techniques for land |
| Mineral Resources and Energy | Solar Water Heater (SWH) Programme |
| Mineral Resources and Energy | National Energy Efficiency Strategy (pre-2015) |
| Mineral Resources and Energy | Integrated Resource Plan 2019 |
| Mineral Resources and Energy | Independent Power Producers (IPP) Programmes |
| Mineral Resources and Energy | Post-2015 National Energy Efficiency Strategy |
| Mineral Resources and Energy | Biofuel's mandate |
| Trade, Industry and Competition | Auto Green Paper on the Advancement of New Energy Vehicles |
| Transport | Green Transport Strategy |
| National Treasury | Tax exemption in respect of the disposal of any certified emission reduction credit derived under a qualifying clean development mechanism. (Section 12K of the Income Tax Act) |
| National Treasury | Motor vehicle emissions tax |
| National Treasury | Fuel tax |
| National Treasury | Carbon Dioxide Vehicle Emissions Tax (2010) |
| National Treasury | Regulations in terms of Section 37B of the Income Tax Act, 1962, environmental expenditure |
| National Treasury | Carbon Tax |

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Climate Change Policy

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