



JUST TRANSITION Blueprint for Workers

Toolkit for Educators

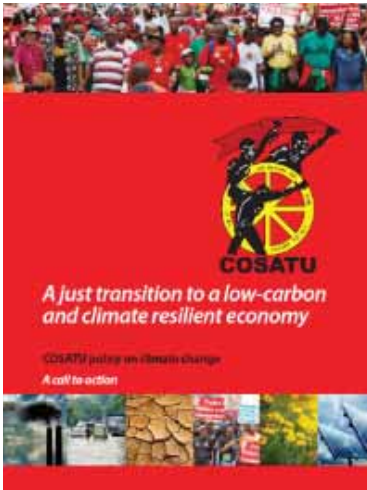


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COSATU POSITIONS ABOUT THE TRANSITION TO A LOW-CARBON AND CLIMATE-RESILIENT ECONOMY

COSATU Policy Framework on Climate Change



Pages 52–59 (8 pages)

The COSATU Policy Framework on Climate Change was adopted by the Central Executive Committee in August 2011. It has 15 policy principles, which are all still relevant. Principle 11 “A legally binding international agreement designed to limit temperature increases to 1.5°C is essential as part of the UNFCCC process” has been overtaken by the 2015 Paris Agreement, which compromised on some demands in this Principle.

The Framework ends with actions for COSATU affiliates to undertake (has your union done them?):

- Begin to develop policies on climate change that will inform their sectoral engagements on climate change
- Build research and education capacity on climate change
- Initiate education programmes for all their leaders and members on climate change
- Begin sectoral engagements on climate change, aimed at specific and targeted strategies for emissions reductions and job creation in each sector
- Investigate ways and means by which they can begin a consistent and informed response to climate change as trade unions.

The 2012 COSATU [booklet](#) ‘A just transition to a low-carbon and climate-resilient economy’ is written to be easily readable and useful for Educators to work with members.

This toolkit is a product of working with Education, Organising, research by WWF South Africa, and workshops, as well as funding by the Just Transition Centre.

Just Transition Blueprint for Workers Summary Document



Keep the Blueprint Summary Document to hand for working with members on the just transition. It includes:

- Top five demands for a just transition (page 5).
- COSATU’s vision for eco-socialism (page 6), in contrast to the wrong kind of transition that could occur if interests of the working class are not at the forefront and neoliberalism prevails.-
- Three characteristics of the South African political economy that have to change (pages 7/8), being • an economy based on fossil fuels and shaped by the minerals-and-energy complex

- segregated spaces with unequal access to land, opportunities and services • governance which pursues neoliberalism and austerity.
- Strategies for labour advocacy (page 18).
- 24 demands for workers to make for an economy-wide just transition (pages 20–22), with short-term and medium-term demands, variously targeting national government, local government, bargaining councils or workplaces.

Just Transition Blueprint for Workers



Educators should read the full [Blueprint](#). It is 96 pages of content if you leave out parts about the Blueprint project itself. Perhaps the Education structure could set up a study group to work through it together. On the next page is a programme of 3 sessions for the study group. Allow 2½ hours per session. Before the session, allocate a few pages to different comrades, who read those pages and then present them in the session. Follow this with debate and discussion.

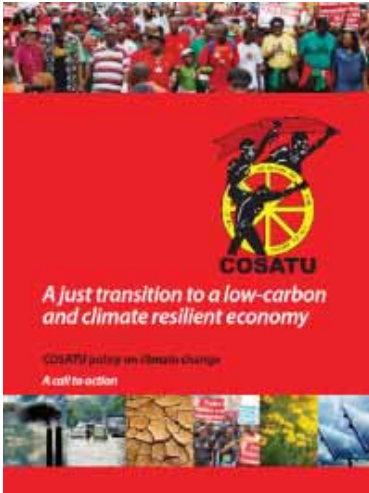
Section	Pages
Session 1: Need for a just transition in South Africa	Covers 9½ pages altogether. Allocate pages to 5 comrades as follows:
2 A just transition for workers	9–10 (2 pages)
2.1 History of the just transition	
2.2 Situating a vision for the end state in the South African context	10–13 (3 pages)
2.3 Situating just transition in the South African context	13–15 (2 pages)
2.4 Impacts of climate change for workers and communities	15–16 (2 pages)
2.5 Impacts of an unjust transition for workers	17–18 (1½ pages)
Session 2: Political economy and economic transitions	Covers 9½ pages altogether. Allocate pages to 4 comrades as follows:
2.6 The need for systemic change and an economy-wide just transition	18–19 (2 pages)
3 Key characteristics of the South African political economy to change	20–23 (3½ pages)
3.1 An economy based on fossil fuels	

Section	Pages
3.2 Segregation and spatial development	23–26 (3½ pages)
3.3 Governance in crisis and the role of the state	26–27 (1½ pages)
Session 3: Strategies and organising	Covers 7 pages altogether. Allocate pages to 4 comrades as follows:
4.4. Cross-cutting impacts and opportunities	98 (1 page)
5 Organising for a just transition	99–101 (2½ pages)
5.1 Broad synthesis of opportunities and barriers	Includes: · Top 5 just transition demands 101–103 (2 pages) · Demands for an economy-wide transition
5.2 Strategies for labour advocacy	103–104 (1½ pages)
<p>If your union organises in any of the three sectors covered by the Blueprint, follow the same study group approach within the union for the sector-focused sections. Educators outside those sectors need not read all these sections in detail. They can just read the Blueprint Summary Document about them.</p>	
<p>Union study group: Sector focuses</p> <p>If your union organises in any of these sectors, work through that section in your union's structures.</p>	
4 Just transition in three sectors	
Per sector, these sections deal with · Current state of the sector · Climate change and the sector · A value chain · Potential pathways/ opportunities for a just transition · Proposals · Demands	
4.1 Energy and mining	28–50 (23 pages) Blueprint Summary Document 9–11
Content about heavy industry and metals value chains	33–34 (1 page)
4.2 Transport	51–68 (18 pages) Blueprint Summary Document 12–14
4.3 Agriculture	69–97 (29 pages) Blueprint Summary Document 15–17

Educators should be familiar with the COSATU Policy Framework on Climate Change, the 2012 COSATU booklet and the Just Transition Blueprint for Workers. COSATU's Policy Unit has copies if you need them for work with members. They are also online.

EDUCATING MEMBERS ABOUT CLIMATE CHANGE IMPACTS

Using the COSATU just transition booklet



The 2012 COSATU [booklet](#) Chapter 1 'Social and economic impacts of climate change' covers

- Water, including freshwater supply and our use of water (pages 4–6)
- Food security, with impacts on agriculture and forestry, and rising food prices and hunger (pages 7–9)
- Coastal and marine livelihoods (page 10)
- Human health (page 11)
- Conflict within and between countries (page 14)
- Financial costs of climate change (page 15).

The chapter also looks at 'Gender factors in resilience to climate change' (pages 12–13). An IFWEA [video](#) 'Issues of gender justice in the climate transition' (3 mins) looks at differing impacts of climate change on women and men based on their position in society.

- The chapter ends with a 'Discussions and debates' section (pages 16–17) that has activities Educators can use in workshops.

Update: Climate change events in South Africa

Chapter 1 of the booklet is all still relevant, only things have gotten worse faster than imagined. It is unsound to say one specific weather event is caused by climate change, but there is a pattern of growing climate-related events and disasters. Some examples:

- Between 1990 and 2015, climate change caused almost half of all [heat-related deaths](#) in the country.
- Wildfires in Harrismith (2014), Knysna (2017), Overberg (2018), UCT/Table Mountain (2021) and Kleinmond (2022).

• Droughts:



- On 5/11/2019 the Agriculture Parliamentary Committee was [briefed](#) that widespread drought had plagued the country since 2013, the worst for the past 100 years. It was affecting agriculture and about 37% of South Africa's rural community.
- The Free State drought since 2015, which got some [relief](#) from 2020, is again [severe](#) from 2023: "We don't have enough grass for the animals."

- Cape Town's three-year drought was the worst in over 100 years of record-keeping. It peaked in January 2018. The municipality said the city could reach 'Day Zero', when water would be turned off to save the very last for hospitals and other critical services.
- Nelson Mandela Bay Metropolitan Municipality had been experiencing persistent droughts. In May 2022 a crisis committee was formed to avoid a Day Zero in Gqeberha.

• **Floods:**

- KwaZulu-Natal coast received more than 300 mm of rain in 24 hours in April 2022. The resulting **floods** caused 459 people to die and many went missing. Over 4 000-50 homes were destroyed, 40 000 people left homeless, and 45 000 people were temporarily unemployed. Infrastructure and business losses amounted to over R37 billion.
- Overstrand District of the Western Cape **floods** in June 2023

Projected climate change impacts in South Africa

The longer we delay and the less we cut the greenhouse gas emissions that cause climate change, the more we pay economically and in human suffering. Development and upliftment of people, including ensuring they earn a decent income, is the best way to build their resilience.

Wordbox

We speak of **adaptation** to the effects of climate change. '**Climate resilient**' refers to strengthening the capacity of people, economies and the environment to prepare for, withstand and respond to the impacts of climate change.



South Africa did a **Long-Term Adaptation Scenarios** project over 2012–2014. It produced useful 4-page factsheets based on longer technical reports. Some areas in South Africa are becoming hotter and drier, mainly on the western side of the country. Other areas are hotter and wetter, mainly in the east. The '**Climate Change Adaptation Scenarios**' factsheet looks at how we could try to adapt to those two possibilities, and to a third where the average temperature is over 3°C.

The other factsheets:	Climate change and water sector	Climate change and human health	Climate change and the agriculture sector	Climate change and marine fisheries	Climate change and biodiversity
Climate change adaptation: Human settlements	Climate change adaptation: Food security	Climate change adaptation: Economics	Climate change adaptation: Climate information and early warning systems	Climate change adaptation: Disaster risk reduction and management	Climate change adaptation: Southern African Development Community

The **Blueprint Organisers Toolkit** looks at the impact of climate change on each of the sectors COSATU organises in.

The CSIR's **Green Book** is an interactive tool which gives the climate risks that every local **municipality** in South Africa is likely to face under a changing climate, including information on vulnerabilities, population projections, exposure to climate hazards, and the impacts of climate change on some key municipal resources for each municipality and its settlements.

In terms of **economics**, the **G20 Climate Risk Atlas: South Africa factsheet** from 2021 has recent data and information presented in graphics. It is based on scientific projections of how climate impacts will play out up to 2050 and 2100 under various climate scenarios – low emissions, medium emissions and high emissions – and different socioeconomic pathways. Under a high emissions scenario, it calculates (using an exchange rate of R20.45 per Euro):

- South Africa stands to lose 5% of its GDP by 2050 being R245 billion, and 14% (R675 billion) by 2100. In a low emissions scenario where global warming remains below 2°C, South Africa can limit losses to 3% by 2050.
- By 2050, hundreds of thousands more people will be exposed to floods, costing the economy R286 billion.
- By 2050, South Africa could lose 7% of the agricultural sector's contribution to GDP, a loss of R2 billion. By 2100, longer heatwaves will push South Africa's agriculture sector to the edge, burning up R41 billion in growth. (Under a low emissions scenario: By 2050, rangeland livestock production could gain up to R401 million due to increase in some vegetation types. But forestry output could be reduced by 43%, a loss of R838 million, because of declines in land suitable for forestry.)
- If no adaptation measures are taken, by 2050 damages to road infrastructure could total R4 billion per year, rising to R7 billion per year by 2100.
- Without adaptation measures, by 2050 damages caused by sea-level rise and coastal flooding could cost R17 billion. By 2100, that could be up to R67 billion.
- Damages from rivers flooding could be more severe than those from sea-level rise. By 2050, total asset losses could reach R84 billion, and R196 billion by 2100.

Labour is directly affected by warming, both the number of hours worked (labour supply) and the productivity of workers during their working hours (labour productivity). In South Africa, there was a 40% loss in potential hours of labour in the agriculture and construction sectors in 2019, compared to the 1990s. The G20 report expects total labour in South Africa to decline by 3% under the medium emissions scenario. By 2100, heat-related deaths will climb 25 times higher than in 1990.

Key to understand: Every bit of a degree of global warming matters

Scientists have modelled what happens at various temperatures. The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body of climate and social scientists who review and analyse scientific and other studies related to climate change. In 2018 the IPCC issued the 'Special Report on Global Warming of 1.5°C.' The report compared what will happen at 1.5°degrees Celsius of global warming and 2°C.

On the next page is a graphic snapshot of what the IPCC 'Special Report on Global Warming of 1.5°C' found. In yellow it shows what is expected at 1.5°C, and in red at 2°C, globally. Use it as a poster to discuss the difference in impacts on humans. Or use the IFWEA [video](#) 'Impacts of climate change' (3 mins).

Every part of a °C matters. Globally, in 2023 we are already at 1.3°C warmer than pre-industrial temperatures. Cooler than 1.5°C would be better, but by now is unlikely to be possible. At a certain point, we will not be able to adapt. Already countries on low-lying islands are awash with rising seas – their people can do nothing but move.

Wordbox

Global warming is the average global temperature increase above the average pre-industrial temperature, measured in degrees Celsius (°C). Southern Africa's average warming will be higher than the global average. The warming temperature creates changes in the planet's climate systems. These climate changes in turn have impacts on humans and other species.



CLIMATE RISKS: 1.5°C VS 2°C GLOBAL WARMING



EXTREME WEATHER

100% increase in flood risk. vs 170% increase in flood risk.

SPECIES

6% of insects, 8% of plants and 4% of vertebrates will be affected. vs 18% of insects, 16% of plants and 8% of vertebrates will be affected.

WATER AVAILABILITY

350 million urban residents exposed to severe drought by 2100. vs 410 million urban residents exposed to severe drought by 2100.

ARCTIC SEA ICE

Ice-free summers in the Arctic at least once every 100 years. vs Ice-free summers in the Arctic at least once every 10 years.

PEOPLE

9% of the world's population (700 million people) will be exposed to extreme heat waves at least once every 20 years. vs 28% of the world's population (2 billion people) will be exposed to extreme heat waves at least once every 20 years.

SEA-LEVEL RISE

46 million people impacted by sea-level rise of 48cm by 2100. vs 49 million people impacted by sea-level rise of 56cm by 2100.

OCEANS

Lower risks to marine biodiversity, ecosystems and their ecological functions and services at 1.5°C compared to 2°C.

CORAL BLEACHING

70% of world's coral reefs are lost by 2100. vs Virtually all coral reefs are lost by 2100.

COSTS

Lower economic growth at 2°C than at 1.5°C for many countries, particularly low-income countries.

FOOD

Every half degree warming will consistently lead to lower yields and lower nutritional content in tropical regions.

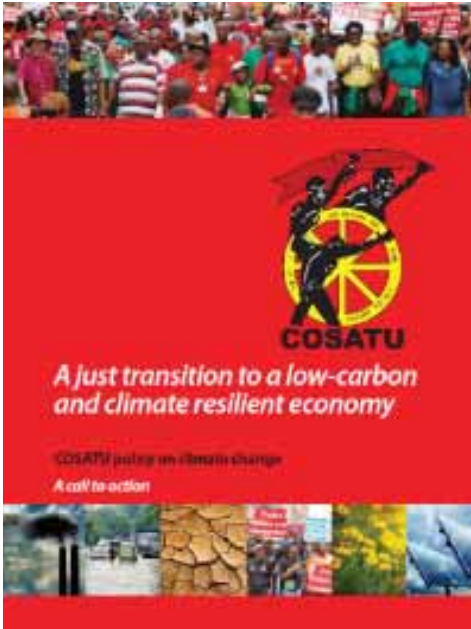
'Tipping points'

are worrying. This is when an earth system flips from one state to an entirely different one, perhaps with a sudden shock. It may alter the way the planet works, and cannot be undone. This will unleash dangerous damage to people and nature.

Five tipping points at risk now are the polar ice sheets disappearing, general permafrost thawing, death of coral reefs, and collapse of a North Atlantic oceanic current. At 1.5 C–2 C warming, next are dying off of mangroves, seagrass meadows and boreal forests.

EDUCATING MEMBERS ABOUT CAUSES OF CLIMATE CHANGE

Using the COSATU just transition booklet



Chapter 2 of the 2012 COSATU [booklet](#) is on 'Understanding what is causing climate change.' It • explains the physical cause-and-effect chain from greenhouse gases, to global warming, to climate change, with its effects which then impact on humans (pages 19–21) • sets out South

Africa's contribution to global emissions (pages 22–23) • looks at the question of financial costs (page 24).

🗣️ Educators can use pages 19–21 to explain what greenhouse gases are, and how excess greenhouse gas emissions from human activity ➔ cause global warming ➔ which causes climate changes ➔ which impact on humans and other species. An IFWEA [video](#) 'Carbon causes climate' (3 mins) also explains it.

Wordbox

Greenhouse gases include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and others. Together they can be written as CO₂e. You cannot see these gases, like you can't see burps. Greenhouse gases disperse into the earth's global atmosphere.

The climate change effect is not the same as local air pollution. Air pollution is substances in the air with a negative effect on local air quality, hence on human health and the environment in that area.

The planet is a big greenhouse

Some of the solar radiation that reaches the Earth is reflected back into space. Some is absorbed by the Earth's surface and re-emitted as heat. The atmosphere is made up of different gases. The gases in the atmosphere trap some of the heat that is re-emitted by the Earth's surface. This is called the greenhouse effect. The greenhouse effect is what keeps the Earth warm enough to support life.

Some of the greenhouse gases that are most responsible for the greenhouse effect are carbon dioxide, methane, and nitrous oxide. These are called greenhouse gases. The concentration of greenhouse gases in the atmosphere has increased significantly since the industrial revolution.

Measuring temperature
Temperature is measured in degrees Celsius (°C) or degrees Fahrenheit (°F). The average global temperature has risen by about 1°C since 1870.

The link between "greenhouse gas emissions" and "carbon emissions"
Different greenhouse gases have different global warming and hence climate change impacts. To be able to compare the warming impact of these gases, they are converted to a common basis called carbon dioxide equivalent (CO₂e). This is done by taking into account the global warming potential (GWP) of each gas over a 100-year period.

Human activity is adding greenhouse gases

Capitalist industrialisation developed in Europe and spread with colonialism. The technologies and processes that drive the big factories, mechanisation of agriculture, motorised transport, and construct and power cities, all cause huge volumes of emissions and destroy natural carbon sinks. We produce, distribute and consume energy, food and other goods in a way that is economically and environmentally unsustainable. There is a lot of waste and over-consumption by some. This damaging "development" has not delivered a good standard of living for most people.

Greenhouse gas emissions
The greenhouse gases are made by burning fossil fuels (oil, coal, gas) to generate electricity, heat and power. They are also produced by deforestation, agriculture and other human activities. The concentration of greenhouse gases in the atmosphere has increased significantly since the industrial revolution.

More greenhouse gases lead to global warming
As humans emit even more greenhouse gases, the gases have been accumulating in the air over time, and getting more and more concentrated in the atmosphere, trapping more and more heat.

Average global warming
The average global temperature has risen by about 1°C since 1870. This is a significant increase, especially when you consider that the average global temperature was about 13°C in 1870. This means that the average global temperature is now about 14°C. This is a significant increase, especially when you consider that the average global temperature was about 13°C in 1870.

Effects of a warmer planet

A higher average temperature of the world leads to:

- more water evaporates from the ocean, inland water and plants and land
- the seas get saltier
- there is less fresh surface water available
- plants dry out quicker
- more water vapour in the air (humid) also traps more heat
- more water vapour held by a warmer atmosphere leads to heavier rains and snowfalls
- ice caps at the north and south of the planet melt, so ...
- level of the seas go up with the extra water, which also expands with heat
- less ice reflects less of the sun's heat away
- glaciers and snow on mountain tops melt and shrink every year, and over time supply less water into streams in spring
- changes in the ocean currents (which create climate conditions)

These effects all create changes in climates around the world. In general, summers are hotter and winters are warmer (this will be welcome in some places). Rainfall and seasonal patterns shift. Plants and animals die, or move if they can to climate conditions where they can still survive. Diseases shift to other areas, for example bacteria like cholera thrive in warmer conditions and the mosquito which carries malaria can survive further south as it warms up.

It is not just that climate patterns shift slowly over time, but the weather becomes erratic, unpredictable and extreme. Extreme weather events like tornadoes, fierce storms, hurricanes, heat waves, droughts are more frequent and more intense. In 2003 a heat wave in Europe killed 25 000 people.

Impacts on humans
Droughts get longer and extend to new areas, including southern Africa, the Mediterranean, Middle East and Central Asia. A 2004 study by the USA's National Center for Atmospheric Research found that the percentage of the world's land experiencing serious drought had more than doubled since the 1970s.

Concentration of gases
The concentration of greenhouse gases in the atmosphere is measured in parts per million (ppm). If every million molecules in the air, there are 370 molecules of carbon dioxide. The concentration of carbon dioxide in the atmosphere has risen from 280 ppm in 1750 to 370 ppm in 2005. This is a significant increase, especially when you consider that the concentration of carbon dioxide in the atmosphere was about 280 ppm in 1750.

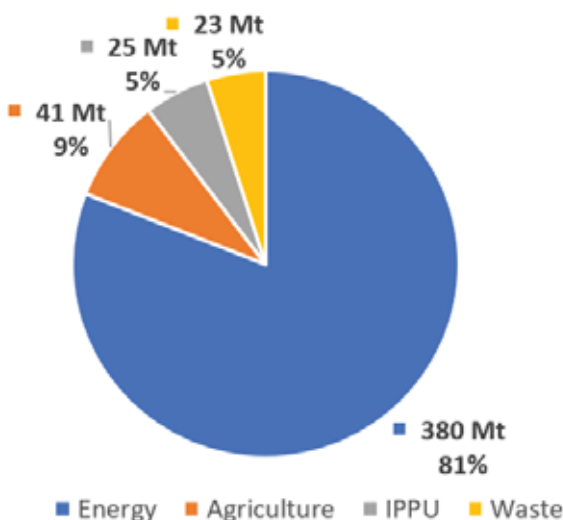
There are also feedback effects, for example as the ice sheets of the Arctic and Antarctic melt, they no longer reflect as much sunlight and global warming increases. It also increases sea level rise.

- The booklet chapter ends with a 'Discussions and debates' section (page 25) that has activities Educators can use in workshops.
- The **Carbon Story** provides a great interactive visual.
 - Click on 'Past': See how human economies and technologies changed over human history, and the CO₂ emissions released. You can see how emissions accelerated with industrialisation. Altogether, more than 2 500 Gt CO₂ has been emitted by human activity.
 - Click on 'Present': It shows you
 - How much of those emissions were released from what sources, so far and in the year 2022
 - Which regions caused how much of the emissions, so far and in the year 2022
 - How much was released in each decade since the 1870s.
 - Click on 'Future': It shows you the average global temperature rise for different concentrations of CO₂ in 2100 and consequences for land, oceans and weather at those temperatures.

Update: South Africa's greenhouse gas emissions

The National Greenhouse Gas Inventory Report 2000–2020 says South Africa emitted a total of 469 Mt greenhouse gases in 2020. Remember this was the year Covid-19 lockdowns started, so emissions were lower. The inventory breaks down the sources of the emissions as follows:

Share of South Africa's total 469 Mt GHG emissions in 2020



Wordbox

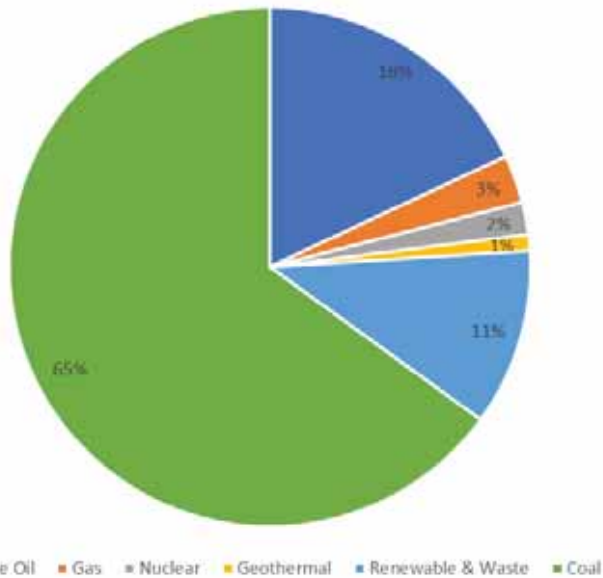
The amount of greenhouse gases is measured in tonnes. 1 tonne is more-or-less the amount inside the cube in the photo.

A **megatonne** (Mt) is 1 million tonnes.

A **gigatonne** (Gt) is 1 000 megatonnes.



South Africa's energy supply mix in 2018



- The 81% of emissions from 'Energy' splits up into
 - Eskom 43% · Energy Industries 7% (from companies that explore and extract coal, oil, fossil gas; and companies that produce energy, like coal-fired power plants, Sasol and refineries)
 - Transport 10% (combustion of petrol and diesel in vehicles)
 - Energy generated on site for use in manufacturing and construction 7%
 - Emissions leaked along energy value chains 6%
 - Other 8%.

- 'Agriculture' emissions are mainly (77%) from livestock, the rest from animal urine and dung, rotting crops and inorganic synthetic fertilisers (some made from petrol).

- IPPU stands for Industrial Processes and Product Use. About half these emissions come from metals industries such as iron, steel and ferroalloys production.
- 'Waste' emissions are mainly from rubbish rotting or being burnt, and wastewater.
- South Africa's forest land and grasslands absorb more greenhouse gases than they emit. This is not counted in the numbers above.

The fact that so much of our emissions come from energy is an opportunity to easily cut our emissions. This is because the renewable energy technologies to replace fossil fuels for electricity and transport are well established, cheaper and quicker to put in place, and South Africa has among the best solar and wind resources in the world. But we must be sure to make the transition just. South Africa's economy was built off the back of exploited mineworkers – until they organised as the African Mine Workers Union and then NUM and won better wages and working conditions – and we will not abandon them now. The Blueprint is very clear on this.

South Africa's emissions in relation to global emissions

- In 2022, South Africa's emissions **ranked** as the 15th highest in the world – but far, far less than the highest emitters. China's emissions were 28 times South Africa's, the United States' 13 times, India 7 times, Russia's 4 times and Japan's coming up to 3 times.
- As a **percentage** of global emissions, South Africa's carbon emissions were 1% of the world's emissions. Africa altogether produces only 4% of global carbon emissions. If big emitters don't cut back, South Africa's efforts will be ineffective.
- Per capita emissions are total emissions of a country or continent divided by the number of people living there. In 2021, **Africa** had the lowest per capita emissions of all continents with an

average of 1 tonne of CO₂ emitted per year by each individual. Compare this to South America (2.5 t), Asia (4.6 t), Europe (7.1 t), Oceania (10 t) and North America (10.3 t). In 2021, South Africa's CO₂ emissions **per capita** were 7.34 tonnes. This is higher than Europe and a lot higher than those of other emerging economies. Because of colonialism and apartheid, the majority of South Africans don't come close to having the same standard of living off our emissions as most Europeans, who achieved theirs through slavery and colonial extraction.

Note that it is going to take every country doing everything possible to keep global warming to 1.5°C or even 2°C.

Key to understand: Net zero by 2050

Levels of CO₂ emissions to stabilise at 1.5 °Celsius warming

by 2030: ±45% less than in 2010

by 2050: net zero by 2050 and beyond

Source: www.ipcc.ch/15hapter6

In the IPCC's **2022 Sixth Assessment Report**, modelling of phasing down carbon dioxide emissions levels • for a 50% or better chance • to stay below 1.5°C, shows that:

- The world needs to cut emissions by 45% below 2019 levels by 2030, and continue reducing from there. At the start of 2024, we have seven years left to do this.

✓ Here is a [video](#) about this (1 min 43s)

- We must be at net zero emissions by about 2050, and then remain at net zero thereafter.

As at December 2023, **Climate Action Tracker** finds that: • The targets that countries have committed to under the United Nations' climate change Paris Agreement put the world 19 to 22 Gt CO₂e over what the IPCC says is necessary in 2030. This is called the 'targets gap' and it leads to global warming between 2°C–3°C. • Further, the policies countries actually have in place and the real action they are taking put the world at 24 to 27 Gt CO₂e over what is necessary in 2030. This is the 'implementation gap' and it will lead to global warming between 2.2°C–3.4°C.

What does net zero mean?

About net zero by 2050, the Blueprint says: "In terms of targets, COSATU is aligned to ... the target of net-zero by 2050. However, this is on condition that the just transition creates decent work and there is also social protection available for those who are negatively impacted by the transition. Net-zero 'at all costs' is not supported if inequality and unemployment persist. Therefore, job plans are a fundamental part of a just transition." In short, net zero by 2050 only with net zero job losses.

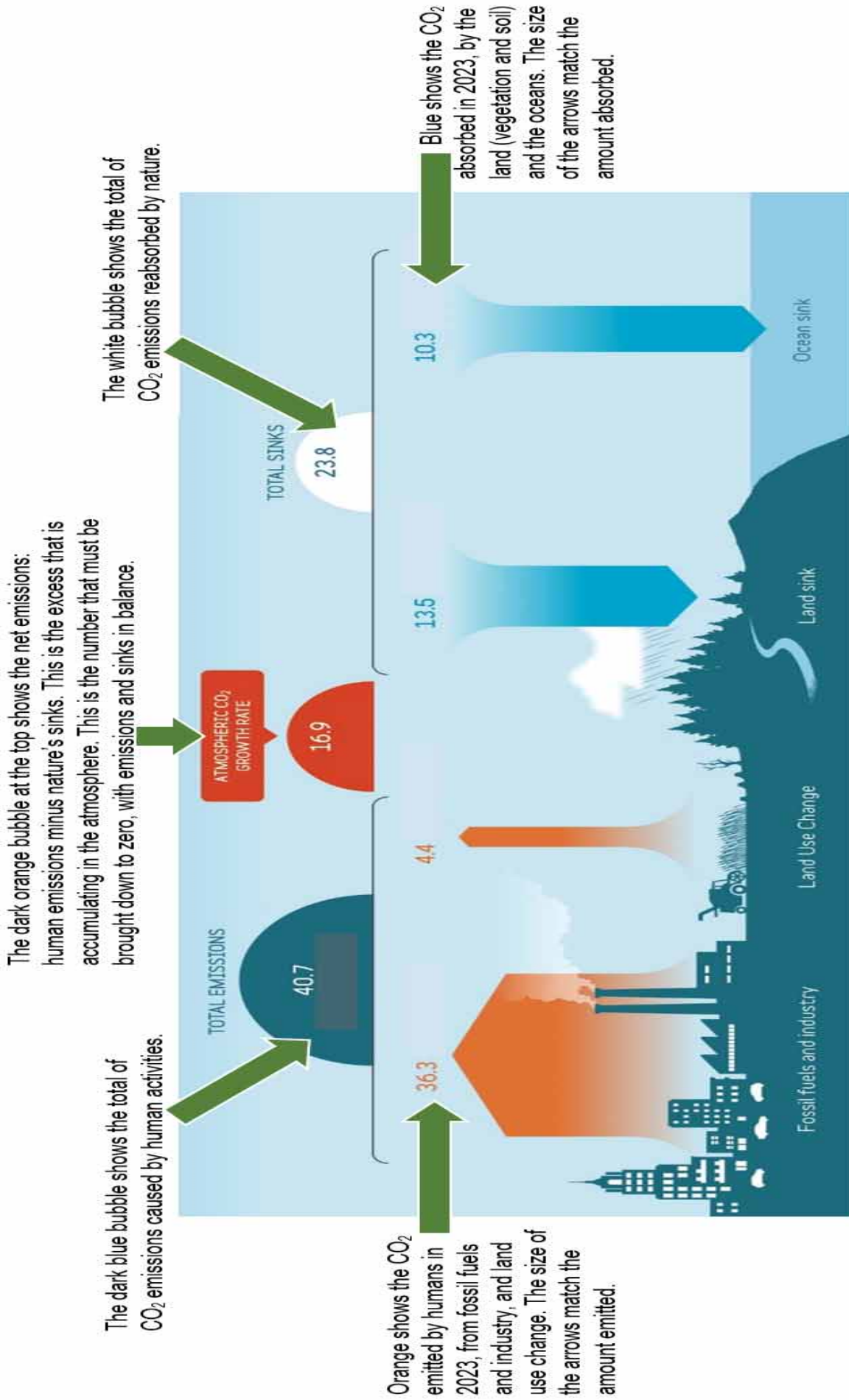


The net emissions caused by humans are the greenhouse gas emissions we emit minus what is removed by carbon sinks. Carbon is absorbed and stored by undisturbed soil and vegetation, and by the oceans – these are the carbon sinks. •‘[Soil as a Carbon Sink](#)’ is an accessible booklet.

- On the next page is a graphic that Educators can use to explain net emissions and net zero to members.



The balance between what we emit and what the planet can absorb



The numbers are in gigatonnes (Gt). In total, human activity caused 40.7 Gt emissions in 2023, or 40 700 megatonnes.

You can see what we must do to get the net number at top middle to zero:

- Reduce the emissions we are releasing (the orange). To reach net zero by 2050 requires annual global emissions reductions like those during the COVID lockdowns of 2020.
- Maintain and restore carbon sinks (the blue). Currently, nature absorbs about half of the CO₂ we emit, but this is declining steadily.

The graphic above shows only CO₂ numbers. At [Global Carbon Atlas](#), click on 'Budgets' to see the numbers for other greenhouse gases.

Vegetation and soils act as carbon sinks on the land. Ways in which humans change the land and reduce the land carbon sink or increase emissions:

- Convert natural vegetation to agricultural land
- Cut down forests for wood
- Overgrazing
- Deep ploughing of arable soils
- Acidify or poison soil through bad fertiliser use or industrial pollution
- Create soil erosion or degradation
- Expand urban areas and destroy natural vegetation
- Seal the soil off from the air with buildings, roads and other manufactured surfaces.

Clearing of vegetation not only reduces carbon sinks but also disrupts ecosystems, impacting biodiversity.

CDR and CCS

Researchers are working on technologies that create artificial sinks. Carbon dioxide removal (CDR) technologies aim to suck already-emitted carbon out of the atmosphere. Carbon capture and storage (CCS) tries to capture carbon as it is emitted and store it. All these technologies are so far unproven and unaffordable. We may need these technologies but can't rely upon them!

Key to understand: Limited carbon budget

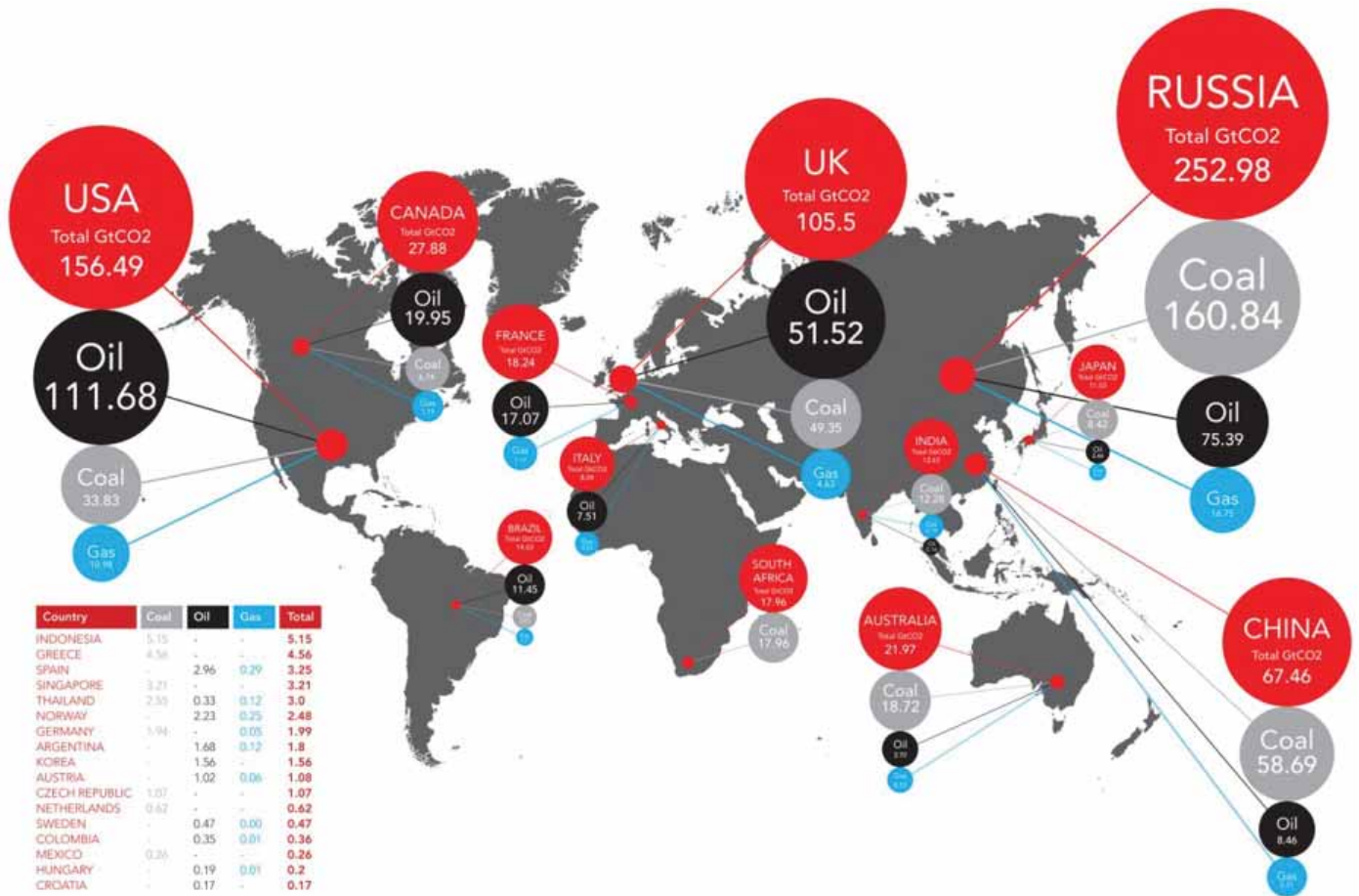
The atmosphere is not infinite and there is a limit to how much emissions we can pump into it before we exceed 1.5°C global warming.



The IPCC's [2022 Sixth Assessment Report](#) tells us:

- To have at least a 67% chance of stabilising average global warming at 1.5°C compared to pre-industrial temperatures, from 2020 on we must not release more than 400 Gt of carbon dioxide (ever).
- If you are willing to take the risk of only a 50% chance, then we can release up to 500 Gt.

This is called our global carbon budget. What we do with other greenhouse gases can change these carbon dioxide numbers. For example, if we do not rapidly reduce methane emissions, this carbon budget is even lower. ▪ A video about the carbon budget (1 min 43 sec).



The [graphic](#) shows proven fossil fuel reserves in 2010. ('Reserves' are the amount of mineral resources that a company has discovered and considers profitable to extract and sell.) The numbers are Gt CO₂ – the emissions if the reserves were extracted and used. Add a few up and see how quickly you use up the global carbon budgets for 1.5°C.

From 2020–2023, globally we already emitted about 120 Gt CO₂, which includes an estimated 40.9 Gt in 2023. If we continue this level of emissions, we will use up the global carbon budget for a 67% chance by 2030. If we emit less each year, we have a longer time to phase out emissions.

In the 2012 COSATU [booklet](#), the section 'Carbon budget approach' (pages 40–41) raises some issues to do with deciding how to deploy the global and South Africa's own carbon budget.

- An IFWEA video 'Urgent action is needed' (3 mins) explains the carbon budget and net zero.

EDUCATING MEMBERS ABOUT SOLUTIONS TO THE CLIMATE CRISIS

Using the Blueprint



The 2012 COSATU [booklet](#) Chapter 4 'Solutions to the challenges of climate change' covers • Low-carbon development (pages 38–39) • The energy question (pages 41–42) • Million Climate Jobs campaign, including what a climate job is and the role of the public sector (pages 42–44).
 • The chapter ends with a 'Discussions and debates' section (page 45) that has activities Educators can use in workshops.

The Blueprint is more up to date on issues and COSATU positions. Rather use the Blueprint and the Summary Document for solutions in the macroeconomy and energy, transport and agriculture. Per sector, these sections deal with • Current state of the sector • Climate change and the sector • A value chain • Potential pathways/opportunities for a just transition • Proposals • Demands.

The [Blueprint Organisers Toolkit](#) looks into climate impacts and solutions also in the other sectors that COSATU organises in.

Key to understand: What can be done to reduce emissions or build up sinks

- The IPCC's Sixth Assessment Report was released over 2021–2023. On the next page is a graphic snapshot of what the report found. Use it as a poster to discuss what must be done to cut greenhouse gas emissions and build up sinks.
- An IFWEA [video](#) 'What can be done' (3 mins) can be used to reinforce the ideas.

Doing things that are good for human health and environmentally sustainable, like technologies to clean up local air pollution, does not necessarily help with climate change. Only activities that tackle greenhouse gas emissions help.

MITIGATION OF CLIMATE CHANGE

A human intervention to reduce emissions or enhance the sinks of greenhouse gases



Based on IPCC Sixth Assessment Report – Climate Change 2022: Mitigation of Climate Change

MITIGATION EXAMPLES		SYSTEMS TRANSFORMATION									
INDUSTRY	Circular material flows Innovation & electrification	ENERGY	Phase-out fossil fuels Renewable energy Demand management / energy efficiency	TRANSPORT	Greener public transport, cycling, walking Electrification	BUILDINGS	Energy efficient homes and appliances Green buildings	AGRICULTURE	Reduce methane from livestock Enhance carbon in agricultural soils & agroforestry	ECOSYSTEMS	Nature-based solutions Ecosystems such as forests, wetlands, grasslands and blue-carbon protected, managed and restored
SOCIETY	Strengthening climate policies Scale up climate finance Improve governance and institutions Equity and just transition	URBAN AREAS	Parks and trees Energy efficient infrastructure Sustainable mobility Low-footprint lifestyles Best practice design and planning	FOOD SYSTEM	Reduce food loss and waste Eat less meat and more plants Improve farming practices						

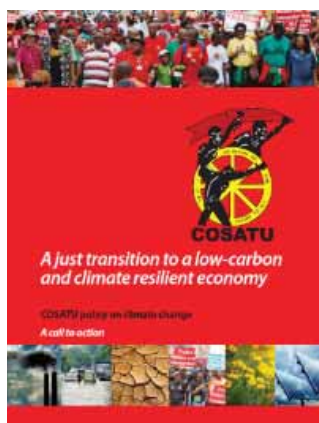
EDUCATING MEMBERS ABOUT GEOPOLITICAL AND CLASS CULPRITS OF CLIMATE CHANGE

Not all countries and not all people have equally caused the emissions driving the climate crisis. The past high-carbon path of industrialisation of developed countries, and over-consumption and waste by the rich in all countries, have caused and are continuing to cause climate change.

Wordbox

It is the substantial increase in the **concentrations** of greenhouse gases in the atmosphere that cause climate change. This is like adding more and more sugar to tea – the sugar dissolves in the tea and the concentration of sugar in the tea becomes higher. Greenhouse gases have been building up in the atmosphere since industrialisation started.

Using the COSATU just transition booklet



Chapter 3 'International politics of climate change' in the 2012 COSATU booklet explains the historical responsibility of developed countries, and the geopolitics. The booklet was written before the 2015 UNFCCC Paris Agreement, but the ideas in the following sections are still relevant:

- Introduction (page 26)
- International negotiations through the UNFCCC (page 27–28)
- 'What would a 'fair' global deal be?' about the differing responsibilities of developed and developing countries (pages 28–31)

- Problems with the UNFCCC agreements (pages 32 and 34)
- "A strong organised global movement" (page 35). Note that the Kyoto Protocol expired in 2020, with the Paris Agreement being in place instead.
- The

chapter ends with a 'Discussions and debates' section (pages 16–17) that has activities Educators can use in workshops.

Update: Paris Agreement

The Paris Agreement was adopted by 196 Parties at the 21st COP of the UNFCCC held in 2015 in France. There are now 198 signatories.


It was good to get a global agreement. But UNFCCC decisions are taken by consensus of all, so there were compromises compared to what COSATU's Principles called for.

Wordbox

UNFCCC = United Nations Framework Convention on Climate Change

COP = Conference of the Parties

Parties = signatory countries or regional governments like the European Union

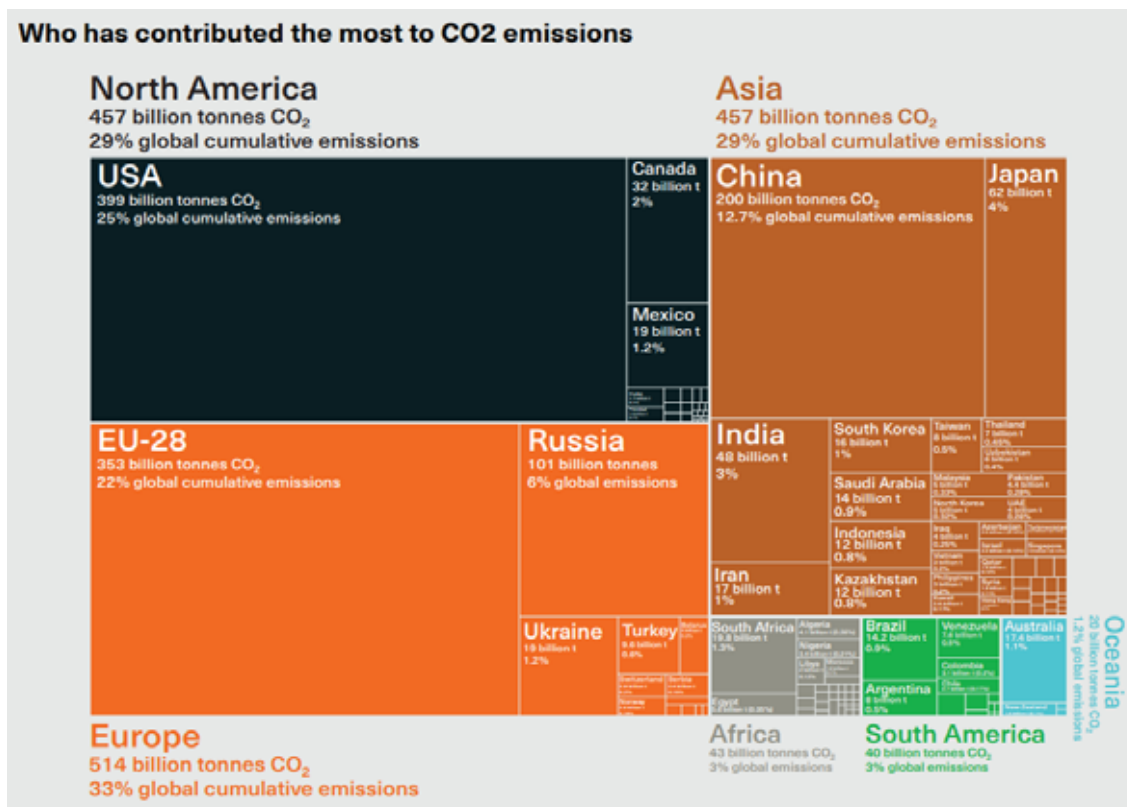
<ul style="list-style-type: none"> • What we wanted (booklet pages) 	<p>What we got in the Paris Agreement</p> <ul style="list-style-type: none"> • Achieved • Partly achieved • Not achieved
<p>Principle 11 (page 57): Fair agreement i.e. which</p> <ul style="list-style-type: none"> • respects the different responsibilities of developed and developing countries, and • ensures also a just transition for workers and their families around the world. 	<ul style="list-style-type: none"> • The Agreement does impose responsibilities upon developed countries to give finance and other support to developing countries. Also, they are expected to peak and then reduce their emissions earlier than developing countries. • The need for a just transition is noted: “The Parties to this Agreement ... Taking into account the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities ...” This academic paper provides a useful analysis of what this means for countries’ obligations and actions. COP27 started a Just Transition Work Programme.  <ul style="list-style-type: none"> • <i>Bert De Wel is ITUC’s Climate Policy Officer and Trade Union Constituency Focal Point at the UNFCCC.</i>
<p>Principle 11 (page 57): Ambitious agreement i.e. whereby</p> <ul style="list-style-type: none"> • allowance is made for an average increase in temperatures of no more than 1.5°C • developed countries take the lead and make binding commitments for emission reductions of up to 40% of 1990 levels by 2020 	<ul style="list-style-type: none"> • “The Parties to this Agreement ... Have agreed [to] Hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels ...” • The Agreement does refer to net zero: Parties aim to reduce emissions “so as to achieve a balance between [human-caused] emissions ... and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity ...” • The Paris Agreement does not impose binding emission limits on any Party. Instead each Party must submit a Nationally Determined Contribution (NDC). This outlines its emission reduction targets, and mitigation and adaptation plans for the next five years. Every five years, countries must submit a new NDC and it is expected to be an improvement over the previous one, leading to greater emissions reductions. Parties must also submit Long-term Low Emission Development Strategies (LT-LEDS). A country decides on all of these things itself. There are various good tools for evaluating countries’ NDCs. See pages 132–137 of Training Manual.
<p>Principle 11 (page 57):</p> <ul style="list-style-type: none"> • Legally binding agreement • with sanctions against those that break the agreement. 	<p>This brief analyses in what ways the Agreement is and isn’t legally binding.</p> <ul style="list-style-type: none"> • The Agreement only applies to those who sign it, and countries can opt out. At the start of his term as President in 2017, Donald Trump withdrew the United States from the Agreement, a process which then takes four years. On his first day in office in 2021, President Biden brought the United States back into the Agreement. • As an international treaty, the Agreement is formally legally binding. But it is not binding in effect. There is a set temperature goal, but no emissions restrictions are imposed on countries. There are clear actions Parties are expected to take (NDCs and LT-LEDS), but no consequences or sanctions if they don’t do it or don’t meet the targets they have set. • There is no means to control that it gets done. In between the NDC deadlines is a Global Stocktake to assess collective progress towards the goals, and give recommendations. The first Stocktake ended at COP28, where Parties decided on the final Global Stocktake text. It “calls on” (not requires) countries “to contribute to” (not “just do it”) “transitioning away from fossil fuels ... accelerating action in this critical decade.” This is the first time a COP decision has explicitly included fossil fuels. The Stocktake also asks countries to contribute to triple renewable energy and double energy efficiency globally by 2030.

<ul style="list-style-type: none"> • What we wanted (booklet pages)	What we got in the Paris Agreement <ul style="list-style-type: none"> • Achieved • Partly achieved • Not achieved
Principle 12 (pages 57/58): <ul style="list-style-type: none"> • We reject market mechanisms to reduce carbon emissions. 	<ul style="list-style-type: none"> • The Paris Agreement allows for an international carbon market. For example, Country A restores natural sinks, and sells the emissions absorbed to Country B, which can then count that as part of its emissions reductions. The contentious mechanism is still being figured out – see ‘Article 6’ at this link. There are also private sector voluntary carbon markets outside of the UNFCCC system. • For the first time, the Agreement recognises “the importance of integrated, holistic and balanced non-market approaches ... to assist ... in the implementation of NDCs ...”
Principle 13 (page 58): <ul style="list-style-type: none"> • Developed countries must pay for their climate debt and • the Green Climate Fund must be accountable. 	<ul style="list-style-type: none"> • “Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation ...” Developed countries were to provide \$100 billion annually to developing countries by 2020 and until 2025. Beyond 2025, a new climate finance goal will be negotiated at COP29. The problem is making the money flow. The Agreement includes the issue of ‘loss and damage’, and a Loss and Damage Fund was set up at COP28. <p>Other assistance from developed to developing countries is for technology development, dissemination and deployment, and for capacity building.</p> <p>Just Energy Transition Partnerships between selected developed and developing countries are bilateral arrangements outside of the UNFCCC. The Organisers Toolkit includes a section on this and COSATU’s positions under ‘Finance.’</p>
Principle 14 (pages 58/59): <ul style="list-style-type: none"> • We need technology development, and • technology transfers must not be fettered by intellectual property rights. 	<ul style="list-style-type: none"> • “Parties, noting the importance of technology for the implementation of mitigation and adaptation actions ... and recognising existing technology deployment and dissemination efforts, shall strengthen cooperative action on technology development and transfer.” This happens through a Technology Mechanism. • Capitalism relies upon intellectual property, so we are a long way from winning this one. Within the Just Transition Work Programme negotiations, support from developed to developing countries went beyond finance and included issues of patent and licence restrictions, as well as punitive tax and trade measures.
Principle 15 (page 59): <ul style="list-style-type: none"> • The South African government’s position in UNFCCC processes must fully reflect the interests of the people. 	<ul style="list-style-type: none"> • In August 2022, South Africa’s Cabinet adopted the Just Transition Framework developed consultatively by the Presidential Climate Commission. So this is now the government’s position. • The Commission is at times called upon to host stakeholder engagements for government. On 26/10/23, it hosted a consultation on South Africa’s COP28 negotiating position. Here is a useful summary of COP28 outcomes.

Key to understand: The concept of a country's 'fair share'

- An IFWEA [video](#) 'The concept of a country's fair share' covers the ideas in this section.

The 2012 COSATU [booklet](#) explains the UNFCCC principle of 'common but differentiated responsibility and respective capabilities.' Developed countries that have been industrialising for over 200 years have historically been emitting the greenhouse gases that have built up to today's concentrations in the atmosphere, causing climate change today. Some countries have much higher capacity to act than others, due to their higher income and wealth, level of development and access to technologies.



How much countries have [contributed](#) to cumulative carbon dioxide (CO₂) emissions over the period 1751 (when industrialisation started) to 2017

But there are no methods agreed at the UNFCCC to quantify a country's 'responsibility and capability' or to allocate the global carbon budget or the mitigation effort required between countries. The IFWEA [video](#) (3 mins) explains resource-sharing (carbon budget) or effort-sharing (reduction targets) approaches. Whether using the resource-sharing or effort-sharing approaches, the allocation method should ensure **fair shares** between countries.

How should we fairly divide up the emissions resource, or reduction effort required, between countries? This is a question of geopolitical justice. You can find a list of [different proposals](#) from researchers for fair effort-sharing methods. Issues that come into the debate about how to do this include:

- responsibility for historical emissions
- state of economic development and the right to be able to develop to a certain level
- size of population and per capita emissions
- financial, technological and other capacity to reduce emissions.

Civil Society Equity Review

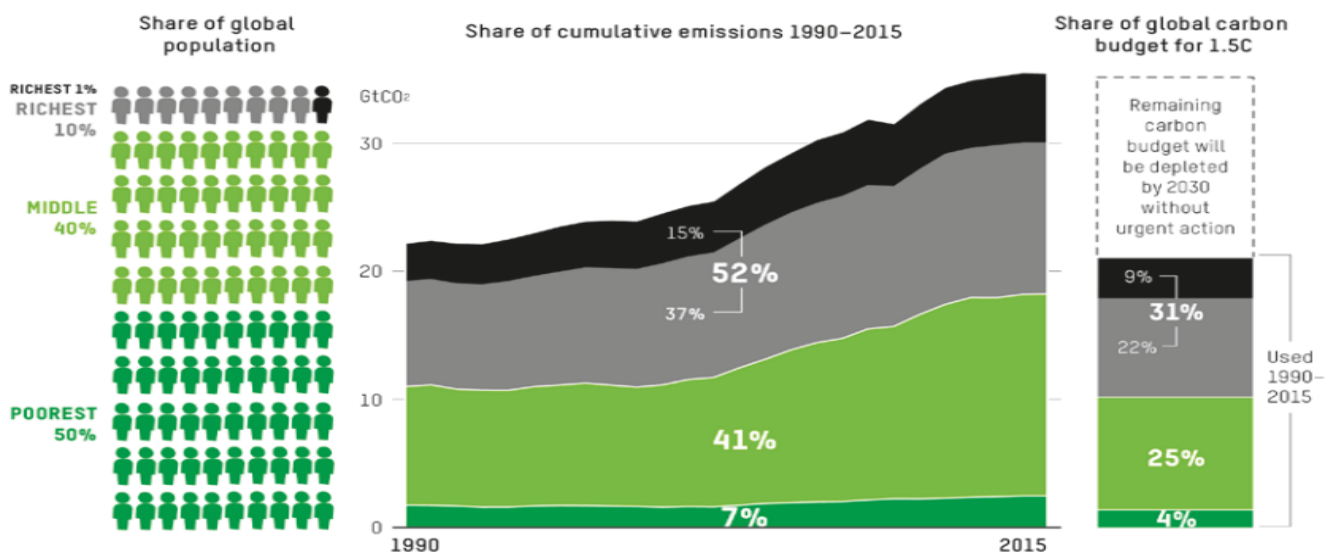
Since 2015, the [Civil Society Equity Review](#) puts out reports which evaluate countries' NDCs against their fair share. The 2023 report extends the fair share calculations to 2035 to give fair-shares targets for countries to consider as they start developing the next round of NDCs.

The Civil Society Equity Review has developed an approach for countries to equitably phase out fossil fuels. “[M]ost ... allocate actions among countries according to a principle of least cost ... we instead aim to minimise social costs (harms). ... In countries more dependent on fossil fuels, the social impacts of a rapid transition will be greater.” They look at dependence on: • energy from domestic fossil fuels • revenues from fossil fuels • fossil fuel jobs. South Africa has all these dependencies.

Key to understand: Carbon inequality

An Oxfam [study](#) looked into carbon emissions per income group over the period 1990 to 2015. The report says “close attention is ... needed on the outsized impact of the world’s richest people – wherever they live – to encourage a more equitable use of the remaining global carbon budget.” This is what the study found:

Figure 1: Share of cumulative emissions from 1990 to 2015 and use of the global carbon budget for 1.5C linked to consumption by different global income groups



Per capita income threshold (SPPPP2011) of richest 1%: \$109k; richest 10%: \$38k; middle 40%: \$6k; and bottom 50%: less than \$6k. Global carbon budget from 1990 for 33% risk of exceeding 1.5C: 1,205Gt.

The richest 10% of the world’s population (about 630 million people) were responsible for 52% of the cumulative carbon emissions. They used up nearly a third (31%) of the global carbon budget in those 25 years alone. The poorest 50% (about 3.1 billion people) were responsible for just 7% of cumulative emissions, and used just 4% of the available carbon budget. • An IFWEA [video](#) ‘Carbon inequality’ (3 mins) animates the text above.

The Blueprint workshops with COSATU structures

■ Educators might make good use of the workshop activities and resources from the workshops. Each programme includes easy preparatory work for participants to do before each workshop. In the workshop programmes, read down the column headed 'Purpose' to see the journey the programme tries to take participants through. The COSATU Policy Unit has the contact details for all the resource persons who contributed.

Structure	Scoping meeting	Workshop programme and facilitation slides	Inputs / resources
Educators and Organisers	29 June presentation slides	24–25 October programme slides	<ul style="list-style-type: none"> • Energy: recording of group discussion, with input by Jesse Burton, Senior Researcher University of Cape Town: Energy Systems Research Group (her slides) • Health: recording of group discussion, with input by Sandra van Niekerk of Public Services International. Reportback from the group. • Transport: recording of group discussion, with input by Bruno Dobrusin of the International Transport Workers' Federation
Gender	13 July presentation slides	30–31 October programme slides	<ul style="list-style-type: none"> • Comic book Everyday Stories of Climate Change • GenderCC booklets on Katlehong and Orange Farm projects • Climate projects from around the world awarded 'Gender Just'
COSATU Young Workers	27 July presentation slides	9–10 November programme slides	<ul style="list-style-type: none"> • Future of work input by Adriana Sierra Leal, ILO (speaking notes) • Input by Diana Junquera, Acting Director, ITUC Just Transition Centre on trade union actions for 'green' jobs, shared: <ul style="list-style-type: none"> - ETUC guide Involving Trade Unions in Climate Action to Build a Just Transition - Industrial guide: A Just Transition for Workers - Industrial guide: A trade union guide of practice for a just transition - report Just Transition and the Energy Sector 2022 roundup - article Coming construction jobs in Europe by 2030 - report Skills and Quality Jobs in Construction in the Framework of the European Green Deal

The scoping meeting presentations include · the just transition landscape in South Africa · three core climate change concepts – causes of climate change, the net zero by 2050 goal, global carbon budget – to provide a common foundation of basics going into the workshops.

Resources

In the Educators and Organisers workshop, unionists developed ideas for actions to take up at federation, provincial, union and sectoral, and local or workplace levels. This programme of action can be found in the **Organisers Toolkit**.

Videos

All these videos feature unionists speaking. The videos marked * are about the role of trade unions in the just transition processes in their country, from ITUC Just Transition Centre's booklet *Union experiences and lessons from Canada, Germany, New Zealand, Norway, Nigeria and Spain*.

global (ITUC)	Sharan Burrow on just transition, who was ITUC General Secretary when the video was made https://www.adb.org/news/events/webinar/adb-insight/episode-9 (10 mins)
global (Sustain-labour)	Ideas on transition solutions and green jobs from unionists around the world https://www.youtube.com/watch?v=G-GORzh0Lwc8 (20 mins)
Canada	*Tara Peel from Canadian Labour Congress https://www.youtube.com/watch?v=0C1I0UAniJQ (3 min). More from Tara Peel, on trade unions' goals for a just transition https://vimeo.com/648770007/995c67a99b?embedded=true&source=vimeo_logo&owner=13585357 (5 min 48 sec)
Colombia	Ideas from a workshop exchange between Colombian and Dutch trade unions, universities and policymakers https://www.youtube.com/watch?v=Hq12qbyl-Gw (3 min 19 sec)
Ecuador	"What Transitions: Vision from Ecuador" presentation by Ivonne Yanez of Acción Ecológica https://www.youtube.com/watch?v=5505g8r1aQM&t=1s (14 min 42 sec)
Germany	*Fredrerik Moch, German Trade Union Confederation (DGB) https://www.youtube.com/watch?v=MSs44U4omHc (3 min)
Indonesia	Maria Emininta, Confederation of All Indonesian Trade Unions on how to ensure decent jobs for workers during the energy transition https://www.youtube.com/watch?v=CNBBiNo9GPM (from 2:40)
New Zealand	*Sam Huggard, New Zealand's Council of Trade Unions https://www.youtube.com/watch?v=S01xyeE3D4A (3 min)
Nigeria	*Hauwa Mustapha, Nigerian Labour Congress https://www.youtube.com/watch?v=8kVjUsxoaf4 (3 min)
Norway	*Are Tomasgard, Norwegian Confederation of Trade Unions (LO) https://www.youtube.com/watch?v=LYF5vkhOj-I (3 min)
Philippines	Josua Mata, Sentro ng mga Nagkakaisa at Progresibong Manggagawa (SENTRO), on social ownership of electricity https://www.youtube.com/watch?v=-LQvzXJyDgQ (listen from 6 min)
South Africa	Lebogang Mulaisi, then Congress of South African Trade Unions on how the transition can advance the position of women in work https://www.youtube.com/watch?v=oqTsaF4plyI (1 min 52 sec)
	Lebogang Mulaisi on 4IR https://www.youtube.com/watch?v=fS3Jr_e3ujY (10 mins) used with YWF.
Spain	Carlos Quesada, Comisiones Obreras https://www.youtube.com/watch?v=N6RXCQgm890 (3 min) *
Sweden	Karl-Petter Thorwaldsson, former president of LO Sweden, on the role of hydrogen and green steel as a pathway to a fossil fuel-free economy https://youtu.be/hPV8i739Te8
Trinidad and Tobago	"Take a Stand for Trinidad and Tobago – Climate Change and Justice" by Ozzi Warwick, Oilfields Workers' Trade Union https://www.youtube.com/watch?v=s_tNfdz2E9g&list=PLGo8ywkUXdUt5KbAsQrrrkjajw-0drybh&index=12 (10 min)
United Kingdom	Clara Paillard, Public and Commercial Services Union, on Million Climate Jobs campaign https://www.youtube.com/watch?v=-LQvzXJyDgQ (watch until 5:45)

United States

About a collective bargaining agreement between company Ørsted and union NABTU, for construction jobs in Ørsted's offshore wind projects in the US: <https://youtu.be/IWB4yhTlnCk> (4 min 17 sec)

Judy Sheridan-Gonzalez, New York State Nurses Association, on actions in USA against the oil pipeline and fracking, and on worker/community links: <https://www.youtube.com/watch?v=-LQvzXJyDgQ> (watch from 12:10 to 19:40, time 7 min 30 sec)

'The Food Energy Water Nexus in South Africa' video explains water, food and energy linkages (2 mins 30 secs).

Publications



Training manual: Building alliances for a just transition to a climate friendly and fair economy

A training course from the Olof Palme International Centre and Solidar, to equip unionists and civil society to understand and organise for a just transition. It has activities and tips for trainers that Educators could draw on.



A guide for trade unions: Adaptation to Climate Change and the world of work

A 2020 guide from the European Trade Union Confederation (ETUC), which looks at climate change effects on health and safety at work and on working conditions. It has lots of examples of union actions.



Civil Society Equity Reviews

The Reviews use the Climate Equity Reference Calculator to determine a country's fair share of the global effort to limit warming to 1.5°C, and compares this to its emission reduction targets in its NDC. Each Review also focuses on an equity issue of particular importance for that year's COP, and makes recommendations for ways forward.





State of Climate Action 2023

A regular “report card” of mitigation progress against 40 indicators, with 2030 and 2050 targets to avoid overshooting 1.5 C. It translates the Paris Agreement’s 1.5°C temperature limit into 2030 and 2050 targets across sectors that account for roughly 85% of global GHG emissions — electricity, buildings, industry, transport, forests and land, food and agriculture — as well as those focused on the scale-up of technological carbon removal and climate finance. The 2023 report finds that only electric passenger car sales are on track. Progress on every other indicator is lagging significantly behind the pace and scale that is necessary to limit warming to 1.5°C.



A guide for trade unions: Involving trade unions in climate action to build a just transition and a video

Written by ETUC in 2018, after the Paris Agreement. The guide sets out ideas for union action in relation to: • governance and industrial relations • economic diversification and industrial policy • shifting skills • social protection • preparing and mobilising trade unions. It has examples at national, subnational, industry and company level from European countries.



Industrial regions and climate policies: Towards a just transition?

Case studies by ETUC of Yorkshire and the Humber (UK), North Rhine-Westphalia (Germany), Asturias region (Spain), Antwerp Province (Netherlands), Norrbotten Province (Sweden), Sara Zagora region (Bulgaria), Silesia (Poland). Each case looks at • economy and industry of the region • low-carbon policies and measures taken • trade union positions



4-page pamphlets from the Institute for Economic Justice, on a just transition in our food system:

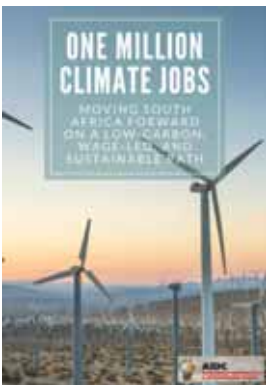
- [Towards a just transition in South Africa's food system](#)
- [The South African food system and the need for a just transition](#)
- [Impacts of climate change on South African agriculture and the food system](#)
- [Overview of the agriculture sector Climate Change Adaptation and Mitigation Plan](#)
- [Climate change emissions in the industrialised food system](#)
- [Agroecology for food sovereignty and climate justice](#)

Just transition in the international development cooperation context



- Just Transition for the energy and mining sectors in South Africa
- Just Transition for the energy sector in the Philippines
- Just Transition for the textile sector in Bangladesh
- Just Transition for the agriculture sector in Nigeria
- Just Transition in coal mining and oil production in Colombia
- Just Transition in recycling and waste picking in India

A report commissioned by Sweden's Union to Union, which includes cases studies. After describing just transition developments and issues, each case study looks at trade union responses, and lessons learned and best practices. These are the case studies:



One Million Climate Jobs: Moving South Africa Forward on a Low-Carbon, Wage-Led and Sustainable Path

The booklet of the Climate Jobs Campaign in South Africa.

The COSATU [Blueprint](#) has five priority demands for a just transition. Part of the demand for job creation and sustainable industrial policy, is a call for investment in public sector climate jobs which support a just transition, as set out in the One Million Climate Jobs campaign. The Blueprint points out a gap in the booklet: care work, largely done by women. One of the 'Demands for workers for an economy-wide just transition' is "Continue support for the One Million Climate Jobs campaign and urge the Presidential Climate Commission to take this up as part of the just transition framework."



Decent Work in Nature-Based Solutions 2022

The 2022 UN Environment Assembly defined nature-based solutions as "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while ... providing human wellbeing, ecosystem services and resilience and biodiversity benefits."

The report quantifies existing and potential jobs in nature-based solutions. It argues that increasing investment in nature-based solutions in synergy with a just transition framework can drive green jobs and decent work. [Appendix 4](#) is case studies, and there is one from South Africa.



Making Good Green Jobs the Law: How Canada can build on international best practice to advance just transition for all

Provides snapshots of legislation relating to just transitions in Canada, Spain, New Zealand, United States, South Africa, United Kingdom, Ireland, European Union, Germany.



Renewable Energy and Jobs: Annual Review 2023

Renewable Energy and Jobs
Annual Review 2023



An annual report from IRENA and the ILO. Each edition counts the number of current jobs, examining different renewable energy technologies worldwide and in selected individual countries. There is a bit on South Africa on page 60. Reports discuss issues such as employment in the energy access context, the gender equity dimension or the requirements of a just transition. The analysis considers a variety of public and private sector policy contexts, including those related to deployment, industrial policy, skill building and the labour market.



Resist, Reclaim, Restructure: Unions and the Struggle for Energy Democracy



Draft discussion paper by Trade Unions for Energy Democracy, prepared for a 2012 Global Trade Union Roundtable. Argues that a trade union strategy for energy democracy can be built around three broad objectives, namely the need to *resist* the agenda of the fossil fuels corporations; the need to *reclaim* to the public sphere parts of the energy economy that have been privatised or marketised; and the need to *restructure* the global energy system in order to massively scale up renewable energy and other safe low-carbon options, implement energy conservation, and ensure job-creation and true sustainability.



Providing Clean Energy and Energy Access Through Cooperatives

An International Labour Office (ILO) publication from 2013. It explores different kinds of co-ops, and different purposes in the energy system that co-ops fulfil, and looks into lots of case studies.



Transition in Trouble? The Rise and Fall of “Community Energy” in Europe

A paper by Trade Unions for Energy Democracy. The paper examines whether local and community ownership of energy has lived up to hopes that it allows for individuals and communities to have real control over the energy-related decisions that affect their lives. They find these hopes may have been misplaced, and argue that only a full reclaiming of energy systems to public ownership seems likely to meet the challenges for the transition and energy democracy.



Social Protection and Social Rights Monitor



Briefs from SOLIDAR's programme on Social Protection, Decent Work and Freedom of Association. The Social Protection and Social Rights Monitor is a tool developed to assess country situations in terms of social protection, decent work and an enabling environment.

There are country reports on Algeria, Burkina Faso, DRC, Egypt, Haiti, Jordan, Kenya, Lebanon, Malawi, Morocco, Niger, Palestine, South Africa, Tunisia, Uganda.



Social justice through a just transition

A statement of the SOLIDAR Network on 20/2/2021, calling for a just transition, including:

- 1 Wealth redistribution measures
- 2 Universal social protection floors and systems guaranteeing adequate minimum income and access to essential services for all
- 3 A new social contract bringing together social and environmental justice: there are no jobs on a dead planet nor would a green transition be possible without social and labour rights, including strong collective bargaining, civic dialogue, health, education and other quality universal public services.

The 2012 COSATU booklet 'A just transition to a low-carbon and climate-resilient economy' and the Just Transition Blueprint for Workers contain the content explaining the issues and COSATU's positions on climate change and the transition. This Educators Toolkit indicates how to use those resources in doing education work with members. It provides updates on developments since the booklet. It focuses on six foundational concepts that are key for Educators to understand when helping members to grapple with climate change and the transition. The Toolkit provides Educators with workshop activities and resources to use in their own work.

Other Blueprint toolkits for COSATU structures are:

- **Toolkit for Organisers:** Impacts of climate change, and what must be done to reduce greenhouse gas emissions, in each sector that COSATU organises in. It covers bargaining and active labour market policies, skills development and social protection for a just transition.
- **Toolkit on Gender:** Gender aspects of the impacts of climate change and the transition to a low-carbon and climate-resilient economy.
- **Toolkit for the COSATU Young Workers:** Making existing jobs climate-smart; emerging industries and jobs which are low-carbon and climate-resilient; training and job placement initiatives for young people.

These toolkits:

- include the workshop programme and resources used with each structure
- end with a programme of action developed by unionists in those workshops

The programme of action for Education and Organising structures is in the **Organisers Toolkit**.