




MODULE 1

Understanding just transitions

 **Prereading:** Read the comic book part of [Everyday Stories of Climate Change](#)^[1] to discover how families in Bangladesh, South Africa, Bolivia, Puerto Rico, and Barbuda experience the impacts of climate change, and their strategies to adapt and recover.

Session 1.1

The climate crisis demands transitions

This session gives people the information that they need in order to understand climate change and transitions to a low-carbon economy.

After this session, participants will be able to:

- Describe some impacts of the climate crisis in their country.
- Explain key climate change terms.
- Explain what is physically causing climate change.
- Give examples of some things that can be done about that (mitigation)

Activity 1.1.1: Sharing climate change experiences

The facilitator can say something like the following to set the scene for the first session of the training course:



Climate is the usual patterns of weather over at least 30 years, not the weather on one day or in one year. There have been droughts, floods, storms and harsh weather before, but now unusual weather keeps happening. People in different parts of the world are experiencing more extreme weather more frequently, such as droughts and floods, heat waves and hurricanes. Rainfall patterns are uncertain, and sea levels are rising.

These climate changes are a threat to our water, food, health, jobs, livelihoods – and the survival of humanity and other species on the planet. Our economies, infrastructure, people and natural systems have to become “climate resilient”, meaning able to adapt and cope with climate changes.

Climate change is caused by our present system of production, distribution and consumption, a system which is both unjust and unsustainable. We have to change our way of producing energy, the way we work, produce goods and provide services. Our economies have to become low-carbon to try to halt further and even worse climate change. <<

Start the workshop with a go-around of all participants. Each participant gets a turn to: (2 min per person)

- Introduce your name, organisation and your role in it.
- Describe an experience you have had of the climate changing and its impacts on your workplace or community

TIPS FOR TRAINERS



The activity will help everyone to get to know each other. They will learn about climate change impacts from each other's experiences. It will give you an idea of how much people know about the climate crisis and what their interests are. While people talk, make notes of knowledge gaps.

Activity 1.1.2:


Input on causes, impacts and mitigation of climate change

TIPS FOR TRAINERS

Based on your notes from Activity 1.1.1, and your previous understanding of the participants' knowledge, use the Fast Facts content to explain or show concepts you think the participants may need.
(30 min including interactive questions)



Companies and governments at national and subnational levels are taking action to reduce the greenhouse gases that cause climate change. Not fast enough, and not at the scale needed, but the transition to a low-carbon economy is happening. It is happening at different paces in different parts of the world, and in different economic sectors.

This creates what we call **transition risks** for different economies, and for workers and people whose livelihoods depend upon sectors and processes that emit a lot of greenhouse gases. The transition also creates **transition opportunities** for new products, services and processes, and for the jobs and livelihoods that could come along with those. 

Activity 1.1.3:

Explore the social and labour aspects of mitigation actions

Ask each participant to:

1: Look at the infographic “Fast Facts: What can be done to reduce emissions or build up sinks”. (5 min)

2: Pick one mitigation action that is relevant to your context. For that mitigation action, think about one of these questions: (10 min)

- What could be the negative and positive impacts on workers and the working class?
- Would this initiative affect women and men differently?

Think about jobs, working conditions, skills, social issues, home life and communities.

3: Turn to the person next to you and each gets a 5-minute turn to talk about your thinking. (10 min)

TIPS FOR TRAINERS



If the workshop is online:



Ask participants to type their ideas in the Chat, starting by naming the mitigation action they picked.

When done with their own comments, they can read each other's. Save the Chat, because there will be interesting ideas in there. Call upon up to 5 participants to say which idea from someone else made them think differently. (15 min)

Session 1.1

Reflection

At the end of every Session are some questions you can think about for yourself. They may alert you to check your understanding by reading a relevant Fast Facts section. They may prompt you for follow-up you might like to do after the session. They may help get you going for implementing what you have gained from the Session.

➤ On [the course site](#) you will find relevant studies, videos and sites for further exploration of the topics in this session. You'll also find all references.

- Can you explain the climate change terms: • greenhouse gases • global warming • carbon budget • net-zero emissions • transition risks • mitigation • adaptation • climate resilience
- Can you explain what is physically causing climate change, and some things that can be done about that?
- How would you convince someone about the urgency of acting at scale to cut emissions, using the concept of a global carbon budget?
- What did you learn about ways communities can become more climate-resilient?

FAST FACTS

Impacts of climate change at 1.5°C and 2°C global warming

Global warming is the average global temperature increase above the average pre-industrial temperature, measured in degrees Celsius (°C). The warming temperature creates physical changes to climates, like rainfall patterns, which in turn have impacts on humans and other species.

Scientists have modelled what happens at various temperatures. Every part of a °C matters. Here is a comparison between the impacts at 1.5°C and 2°C warming, from the IPCC's Special Report on *Global Warming of 1.5°C*. (The IPCC is the United Nations' scientific Intergovernmental Panel on Climate Change.)

We speak of **adaptation** to the impacts of the climate changes occurring. It's about what we do to cope, for example move uphill as sea levels rise.

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

OCEANS

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

EXTREME WEATHER

100% vs. 170% increase in flood risk

FOOD

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

PEOPLE

9% vs. 28% of the world's population will be exposed to extreme heat waves at least once every 20 years.

ARCTIC SEA ICE

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

SEA-LEVEL RISE

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

CORAL BLEACHING

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

COSTS

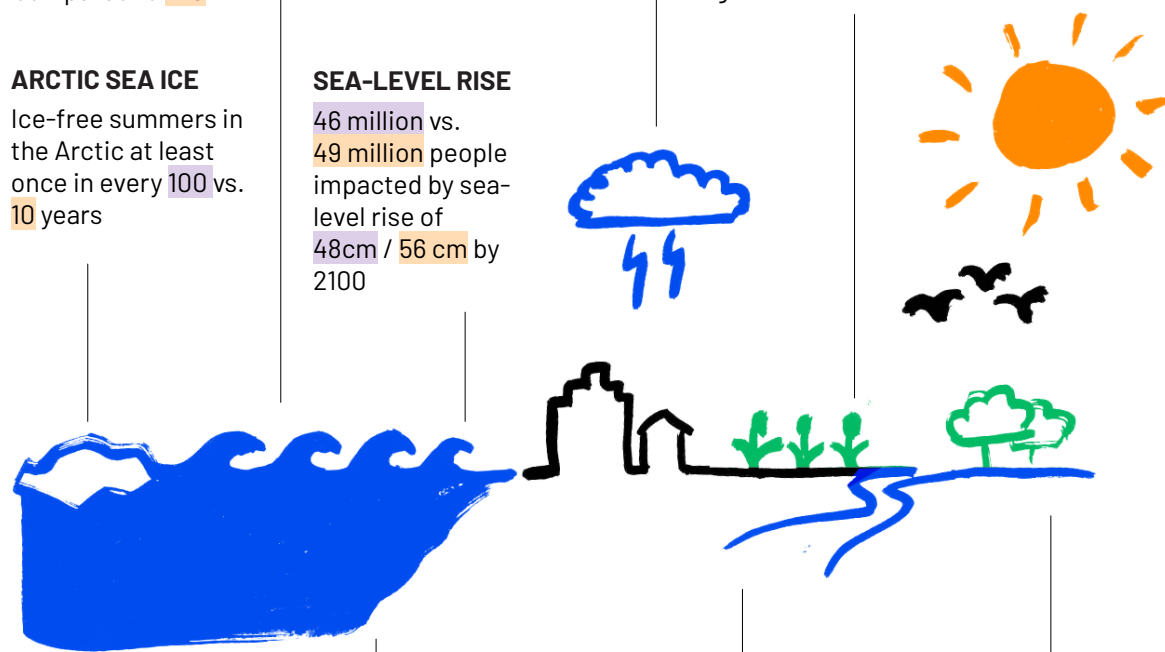
Lower economic growth at 2°C than at 1.5°C for many countries, particularly low-income countries.

WATER AVAILABILITY

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

SPECIES

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



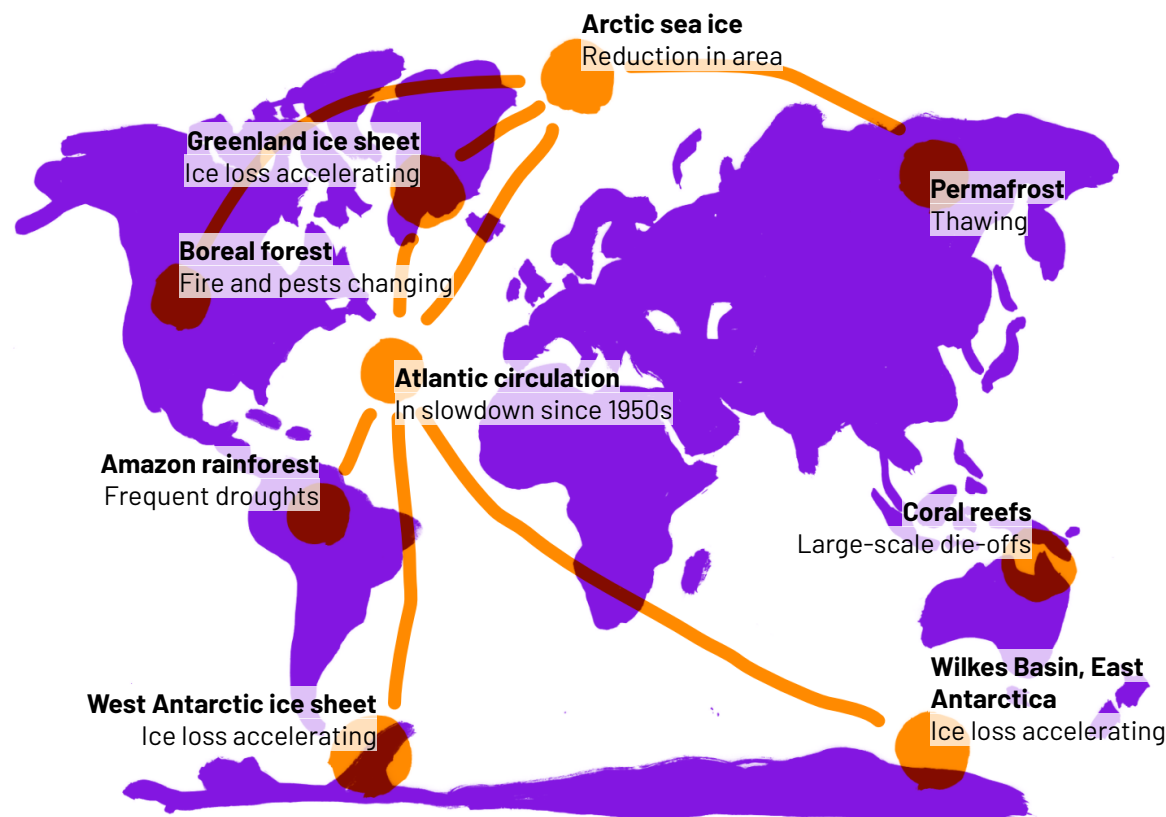
Source: WWF

“**Climate resilience**” refers to strengthening the capacity of people, economies and the environment to prepare for, withstand and respond to the impacts of climate change. It’s about being able to roll with the punches and bounce back, like ensure everyone has a decent income.

We are **already** at **1.2°C** warmer than pre-industrial temperatures.^[2] 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. Other regions will eventually become too hot and humid to live in.^[3] As the temperature rises, we will reach **tipping points** that can’t be reversed, for example we can’t regain all the ice lost at the south and north poles and we can’t switch ocean currents back.

Unequal impacts

People already burdened by poverty and oppression are suffering the harshest consequences of the climate crisis, while having the least resources to cope. Their struggle to earn a living, feed their families and create stable homes is made more difficult by the climate crisis. If you do manual labour outdoors, you are going to suffer in the heat. If you depend more directly on natural systems, for example for subsistence agriculture, you will be affected by



changes to those systems. If your mental or physical health is already stressed by a poor diet, bad living conditions or overwork, you can’t cope as well with more stresses and shifting diseases. If you have few resources, you cannot easily move or put measures in place to deal with climate impacts. Competition for scarce resources such as water can cause conflicts. When extreme weather events or other disasters happen, you can’t bounce back.

FAST FACTS

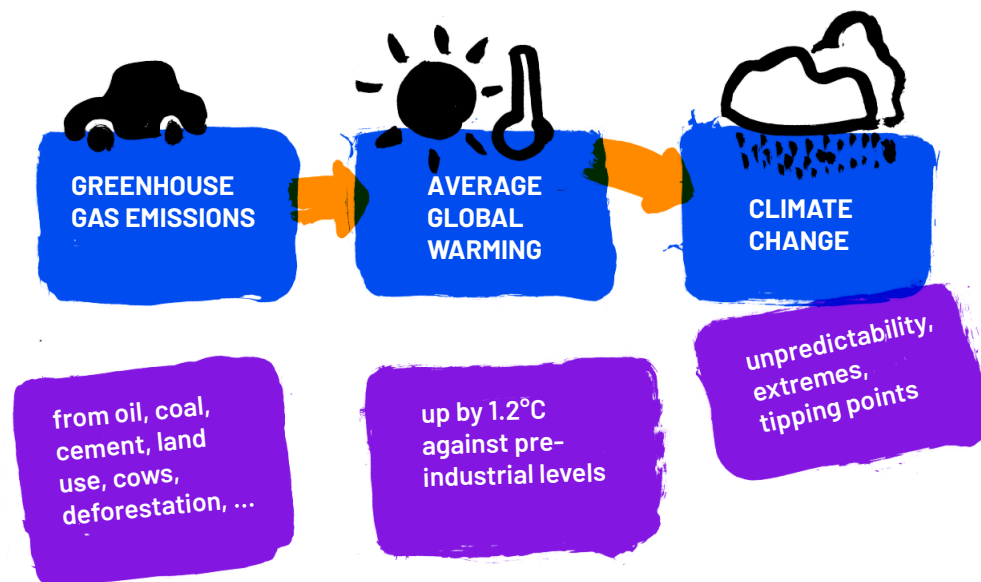
“Carbon” causes climate change

With **industrialisation** from the mid-1700s on, human activity has released increasing amounts of greenhouse gases into the atmosphere. These are the gases that trap heat, leading to **global warming**, which is causing **climate changes**. The gases accumulate in the air over time, and get more and more concentrated in the atmosphere, trapping more and more heat.

Different kinds of greenhouse gases

The most common **greenhouse gas** released by human activity is carbon dioxide (CO₂), which is emitted when we make cement, burn wood and use fossil fuels such as gas, coal or oil. Another major greenhouse gas is methane from livestock burps, rubbish landfills and rotting things.

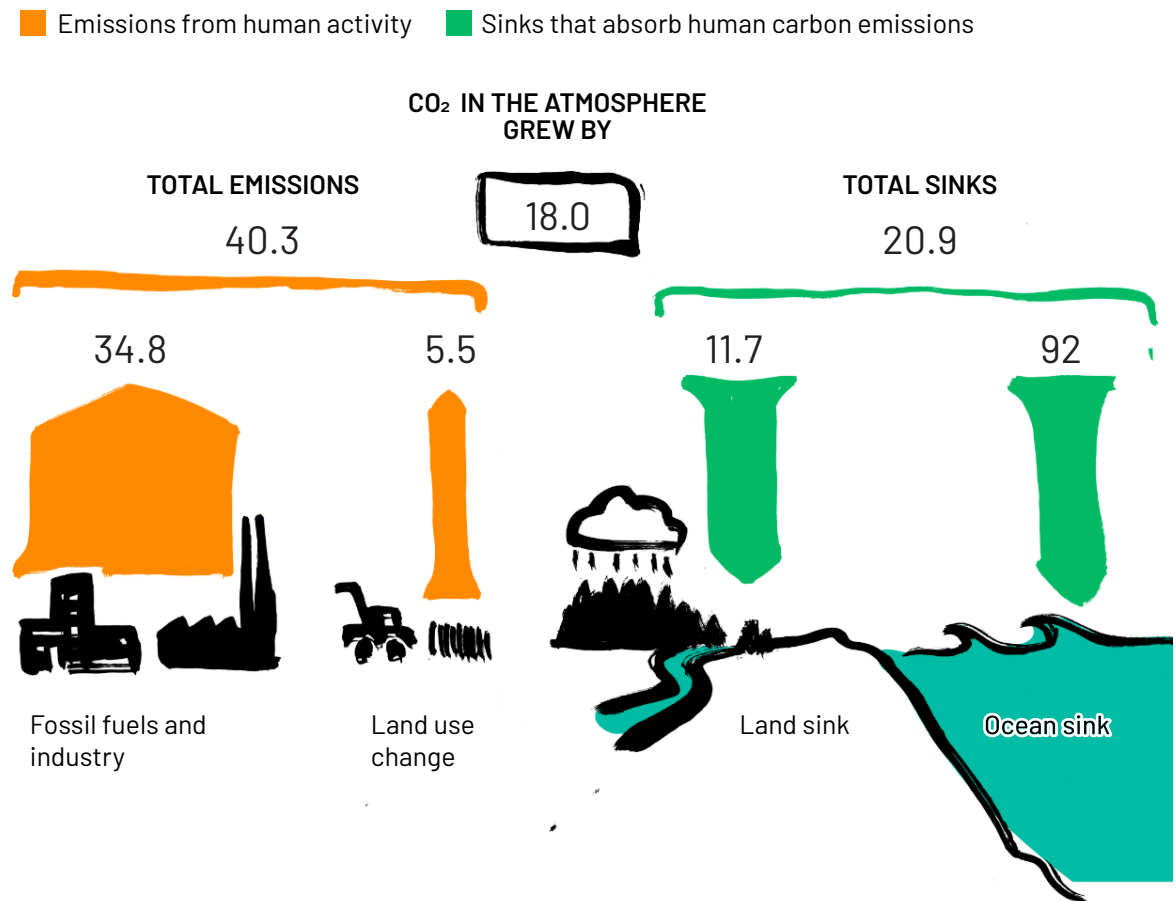
Different greenhouse gases have different global warming and hence climate change impacts. To be able to compare the emissions of these gases, they are converted to a common basis called **carbon dioxide equivalent** (CO₂-eq). Shorthand we often talk of “**carbon emissions**”.



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

The oceans, soil and vegetation act as “**carbon sinks**”, absorbing or storing more carbon than they emit. So, changing the way we use land contributes to emissions, both by destroying the sinks so that they can no longer absorb carbon and by releasing the carbon they stored.

We have to reduce carbon emissions from human activities, and maintain carbon sinks, to prevent climate changes beyond what humans can cope with. This is called **mitigation**.



Emissions and sinks in billion-tons CO₂ per year, average 2009–2018

Source: [Global Carbon Project and Fondation BNP Paribas](#).

FAST FACTS

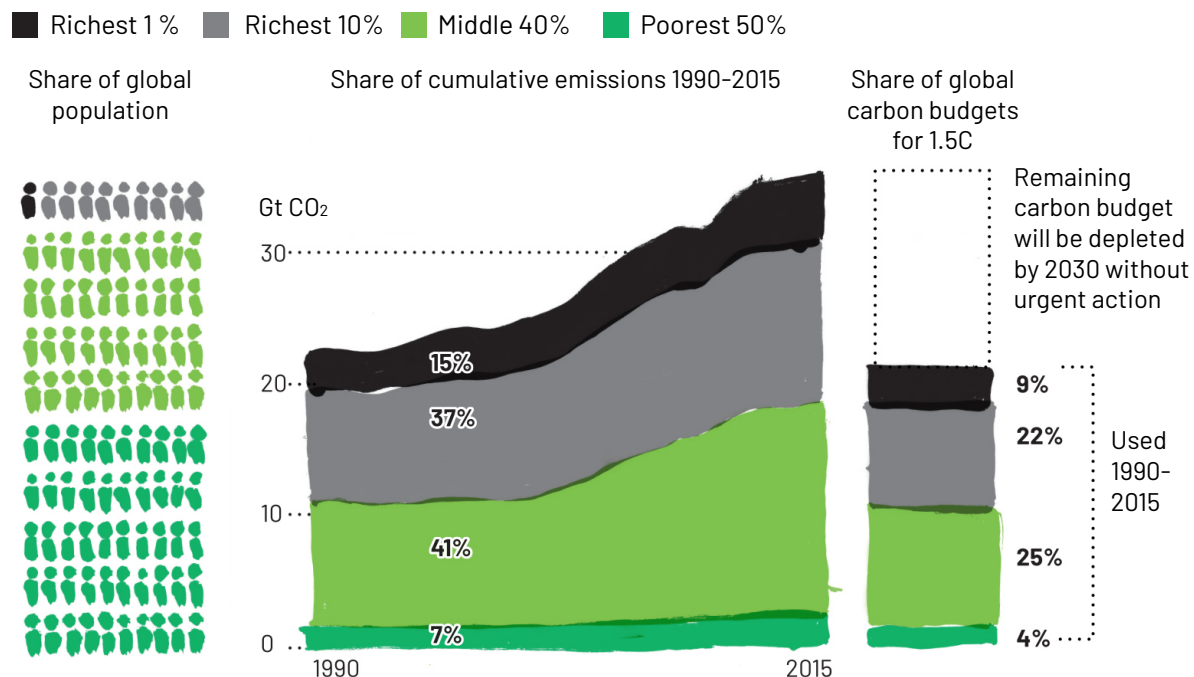
Carbon inequality

Not all countries and not all people have equally caused the emissions driving the climate crisis.

Countries that have industrialised using fossil fuels for longer have contributed more climate emissions than countries that are less industrialised or have been industrialised for less time – the “Global South”. The training course deals with this in Session 2.1.

An Oxfam study looked into carbon emissions per income group over the period 1990 to 2015. Those 25 years saw a rapid escalation of the climate crisis, as global annual carbon emissions grew by around 60%, and the total emissions added to the atmosphere since the mid-1800s approximately doubled. The report says “close attention is also 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:



Source: [Oxfam. 2020. Confronting Carbon Inequality: Putting climate justice at the heart of the COVID-19 recovery.](#)

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.

We need to address inequality and the idea of what a good life is.

Urgent action is needed

The latest reports from the United Nations' expert body on climate, the IPCC, tell us:

- To have at least a **67% chance** of stabilising average global warming at **1.5°C** compared to pre-industrial temperatures, from 2018 on we must not release more than 420 billion tonnes of carbon dioxide (ever). This is called our **global carbon budget**. What we do with other greenhouse gases can change these carbon dioxide numbers.^[7]
- In 2019, we emitted at least 37 billion tonnes CO₂.^[8] If we continued at that level of emissions, we will use up the global carbon budget for a 67% chance of 1.5°C by 2030. If we emit less each year, we have a longer time to phase out emissions.
- For a **50% or better chance** to stay below 1.5°C, i.e. if the world takes a higher risk when it comes to the 1.5 target, the world needs to cut emissions by 45% below 2019 levels by 2030, and continue reducing from there.^[9] We have seven years left to do this.
- We are not on track to meet these global climate targets. Climate Action Tracker finds that there is an **emissions reduction gap** between what the IPCC says is necessary in 2030 and *targets* countries have committed to under the United Nation's climate change Paris Agreement.^[10] In other words, countries' national climate targets are too weak.
- Further, there is an implementation gap between countries' targets and the *policies* they actually have in place. The policies in place at the moment lead to global warming of at least 2.4°C, according to the IPCC.^[11] The Carbon Action Tracker estimates that the world will be on average 2.7 degrees hotter by the end of the century. After that, it will become even warmer.
- We must be at **net zero emissions** by about 2050 – that is emissions released minus absorbed by sinks. However, this deadline assumes that we can achieve **negative emissions** after that year – sucking large amounts of greenhouse gases from the atmosphere. Experts doubt that it is possible at that scale. If we don't take the risk of relying on negative emissions, the actual deadline for net zero emissions would be much sooner.

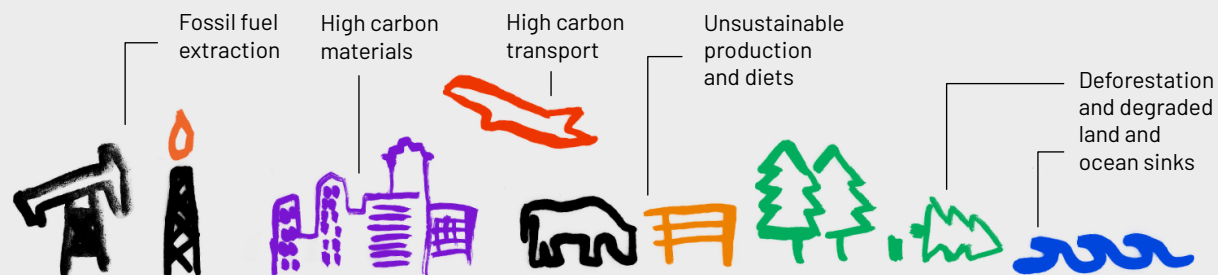
FAST FACTS

What can be done to reduce emissions or build up sinks

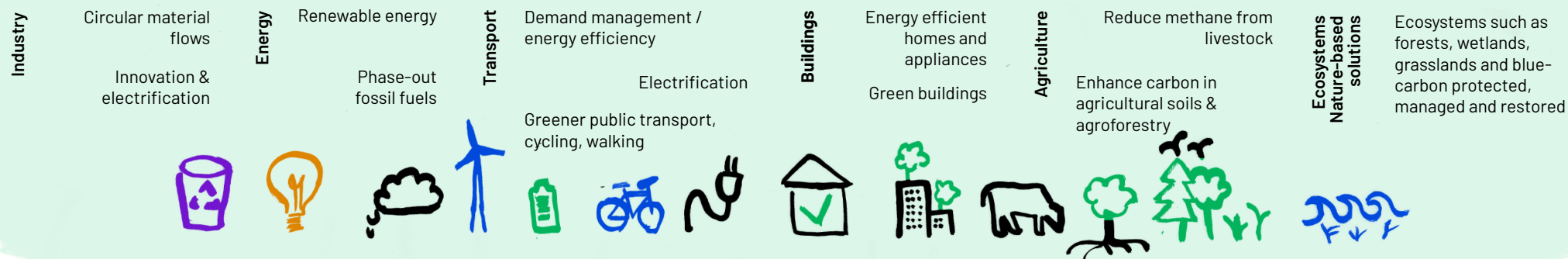
MITIGATION OF CLIMATE CHANGE A Human intervention to reduce emissions or enhance the sinks of greenhouse gases

WHERE WE ARE NOW

- 23–42% of global greenhouse gas emissions are associated with **food systems**
- 15% of global greenhouse gas emissions are from **transport**
- 67–72% of global emissions can be attributed to **urban areas**
- 81% of global carbon dioxide emissions are from **fossil fuels** (coal, oil and gas)



MITIGATION EXAMPLES



SYSTEMS TRANSFORMATION

Society

- Strengthening climate policies
- Scale up climate finance
- Improve governance and institutions
- Equity and just transition

Urban Areas

- Parks and trees
- Low-footprint lifestyles
- Best practice design and planning
- Sustainable mobility

Food System

- Reduce food loss and waste
- Eat less meat and more plants
- Improve farming practices
- Energy efficient infrastructure

Source: WWF

Session 1.2

What transitions are underway?

This session provides participants with information on what changes are needed in relation to water, food systems and energy in order for those systems to be climate friendly. It also sets them thinking about justice aspects in those transitions. It gives people a framework for analysing the character of climate-related transitions in relation to the political economy of a country. They will also get to practise applying the framework to a case study of a country.

After this session, participants will be able to:

- Describe what needs to be done to deliver water, food and energy security, or even sovereignty, in a way that also provides climate solutions.
- Analyse transitions in their own country or other contexts, and assess how transformative they are.
- Apply good ideas from transitions in other countries to their own.

Activity 1.2.1:

Input on transitions to reduce emissions and build climate resilience



Every economic sector, every workplace, every community and every household is being affected by changes in climates and is having to change. On the mitigation side, if we are going to stabilise at no more than 1.5°C global warming, it is going to take everyone doing everything to reduce emissions. We can just about do it.

To build a just transition, we have to understand what needs to transition and what is already happening. I am going to tell you about some of those developments, which you may support or not.

It is not possible to cover everything in one presentation. There are important transition aspects that I won't cover, related to human health, human settlements and the built environment, transport, oceans and coastal zones, and every industry. For example, cement

and steel are important for infrastructure that serves people, but it is difficult to reduce emissions from their manufacture. Heavy-duty trucking, shipping, and aviation are also hard to solve.

My presentation focuses on water, food and land, and energy, because these are key aspects for justice. Everyone deserves secure access to enough and clean water, enough and nutritious food, enough and free or affordable energy, and decent shelter. The climate crisis and changes in technologies and economies are changing the conditions around these.

A time of change in human history holds the opportunity to reshape our societies and economies to deliver greater social justice and a better life for all. <<

TIPS FOR TRAINERS



The facilitator or another presenter makes an input on transition developments in water, the food system, and energy. (30 min with interactive questions)

The Fast Facts and the online Resources section can help you to develop an input.

Activity 1.2.2:

Analysing a transition case study

» Olof Palme International Center and SOLIDAR developed a study called “[A Just Transition for the Global South](#)”. On pages 46/47 is a model for analysing transition processes that are happening. This “Just Transition Approach scale” is taken from [a report by the Labour Research Service](#) and is based on the work of Halsley, UNRISD and the Sub-Saharan Energy Network.

Like this:

You are going to use this framework to analyse a case study. «

THE DIFFERENT LEVELS OF A JUST TRANSITION

Status quo approach

Claim for jobs: Retraining programmes, pension schemes, compensation of affected workers etc.

Nature is seen as a commodity

Rely on market forces

Managerial reform approach

Social dialogue and tripartite negotiations

Access to energy but not ownership

Energy is still a commodity

Structural reform approach

Democratic ownership

A step beyond social dialogue

Not only market forces

Green jobs and welfare approach

Transformative approach

A change of the economic and political system that created the climate crisis

Not market driven

Dismantling of interlinked systems of oppression

Removing gender division



This manual has three case studies of transition processes happening, in Colombia, Spain and South Africa. Participants work in three groups, one group per case study. (20 min for steps 1 to 3, 20 min for steps 4 and 5)

1. In the group, participants divide the subheadings in the case study among themselves.
2. Each person reads the section under their heading by themselves.
3. Then each person explains what they read to everyone else.
4. The group then discusses together whether they think this case study reflects an approach of Status Quo / Managerial Reform / Structural Reform / Transformative Approach. It is interpretation and analysis by the group, there is not one right answer.
5. Discuss: What could be done to drive a more transformative approach in this country?

TIPS FOR TRAINERS



If someone from Olof Palme International Center or SOLIDAR is in the workshop, they can explain the

Status Quo / Managerial Reform / Structural Reform / Transformative Approach framework. If not, read up on it in the study first.

If the workshop is in person, participants can choose which country they would like to analyse and go to that group. The groups don't have to be equal in numbers, but if they are very unequal, the facilitator can balance them.

The case studies in this manual are in English. The manual is also available in Spanish and French. If participants don't want to read the case studies in either one of these languages, look through the Resources for the different Sessions, you may find something there in a language of their choice.

If the workshop is online:



Set up three breakout rooms and name them "Colombia", "Spain" and "South Africa". Let Zoom randomly assign people to one of the rooms. Tell participants that if they are unhappy with the country they are assigned to, they can come back to the main meeting and be reassigned.

Participants will get more time for discussion if they read their choice of one of the case studies before the workshop.

(10 min to explain the framework and set up the groups)

Activity 1.2.3:

Sharing analysis of the case studies

When everyone comes back from the groups, the facilitator will draw out insights by asking: (30 min)

1. Who saw features of a Status Quo approach in the country you analysed? Please explain why you thought so.
2. Who saw features of a Managerial Reform approach in the country you analysed? Please explain.
3. Who saw features of a Structural Reform approach in the country you analysed? Please explain.
4. Who saw features of a Transformative Approach in the country you analysed? Please explain.

Discuss together: What ideas for a more transformative approach did you come up with?

TIPS FOR TRAINERS



You are not asking for reportbacks group by group, or country by country. Per approach, you are calling for reflections from anyone about any country that displays that approach. One country can have aspects of several approaches, and people who studied the same country may differ in their interpretation. Keep letting people add comments per approach until there are no more, then move on to the next approach.

Session 1.2

Reflection

- In the following Fast Facts about water, food and energy, look at the issues under the headings “What are the justice issues?” How do those issues intersect with the work of your organisation? What justice issues would you add?
- Beyond water, food and energy, would it be useful to you to understand trends to do with human health, human settlements, the built environment, transport, oceans and coasts, and various industries? How will you find out about those?
- What did you learn from the country case study your group discussed that might be relevant in your country?

➤ On [the course site](#) you will find relevant studies, videos and sites for further exploration of the topics in this session. You'll also find all references.

FAST FACTS

There are [Climate Action Pathways](#) developed under the United Nations climate change convention. They set out sectoral visions for achieving a 1.5°C and resilient world in 2050. There is a Pathway for each of Water, Oceans and Coastal Zones, Land Use, Human Settlements, Energy, Transport, and Industry. The Pathways give a snapshot of the current situation and provide a list of initiatives that are already happening. Then they describe climate actions with high impact that must be taken by 2021, 2025, 2030 and 2040. The Pathways are useful for being prepared for, and supporting or challenging, coming climate actions. You can think about how these actions might change your workplace and industry, household and community.



Parama Ram, 23, maintains the solar panels that power the water desalination plant in Kotri Village, Rajasthan. The plant produces over 3000 litres of drinking water per day. Before the plant was installed, the villagers would often have to drink the salty groundwater. Photo: © Prashanth Vishwanathan/Greenpeace

Transition trends to do with water

Climate change is often experienced as water stress, including changing rainfall patterns, weather events, floods, drought, and sea level rise.

No living thing can survive without water. Water belongs to all of us and needs to be managed and used in a way that is fair to all of us, including other species.

What is water security?

“Water security [is] the availability and accessibility of sufficient clean water to allow a population to sustainably ensure its livelihoods, health, socio-economic development and political stability. (...) [C]limate change is increasingly shown to be an important contributor to water insecurity worldwide, with some regions more at risk than others.”^[1]

As at 2018, there were more than 2 billion people living in countries experiencing high water stress. This is worsening as demand for water grows, and as the effects of the climate crisis intensify. If we don't take action, studies predict that up to 52% of the world's human population will be living in water-stressed regions by 2050. In 2019, 12% of the world's

human population drank water from unimproved and unsafe sources. More than 30% of the population lived without sanitation services.^[2]

Water-related climate impacts

ON WATER QUALITY AND HUMAN HEALTH

- Less water for drinking, washing, cleaning, cooking.
- Extreme weather events that directly impact human health, economies and ecosystems. These might cause loss of life, livelihoods and assets, displace communities, and damage infrastructure.
- More intense rainfall and floods can lead to disruptions in water supplies and bad water quality, for example:
 - sewage pipes get blocked with washed-off debris, or sewerage infrastructure gets damaged. This can lead to overflowing sewers, or raw sewage getting into rivers.
 - hazardous substances like petrol, oils, chemicals, herbicides and fertilisers are carried through surface water, groundwater and soil systems.
- More and longer droughts mean less water is available to dilute wastewater discharges. Downstream water quality will be worsened, meaning health risks to humans.

- In the heat, as more water evaporates from dams, wetlands and soil/plant systems, the saltiness of the water will increase.
- Higher air and water temperatures create more favourable conditions for water-borne diseases.

ON AGRICULTURE AND FOOD

- Changing rainfall patterns affect what crops are suitable in a region.
- Subsistence and smallholder farmers who depend upon rainfall could be hard hit.
- Increased erosion and sedimentation, causing loss of fertile topsoil and reductions in the quality of agricultural produce.
- Loss of crops and livestock due to extreme storms, wind, floods or drought.
- Polluted, saltier or sedimented water affects crops, livestock and fish.

ON THE NATURAL WORLD

- River ecosystems need a certain amount and quality of water to sustain themselves. This is called the 'ecological reserve', which humans must first give the river before we start using the water ourselves. We need the services that ecosystems supply to us.
- Erosion, sedimentation, pollution and saltiness affect aquatic ecosystems.

- More fish and other water creatures dying due to reduced oxygen in the water, or higher temperatures.
- Changes to natural water attractions.
- All of this could affect tourism, in areas where nature-based tourism is the main attraction.

Water and climate emissions^[3]

The use, storage, distribution and treatment of water and wastewater contribute about 10% of global climate emissions. Greenhouse gases form in landfills, open sewers, dams and lagoons.

Additionally, about 4% of global electricity production is used to transport and treat water and wastewater. Energy consumption in the water sector is expected to double by 2040 as a result of increasing desalination of seawater. If the electricity comes from renewable energy sources, its use by the water sector won't be a major carbon emissions problem.

Apart from all its water benefits, protecting and expanding **wetlands, peatlands and mangrove soils** also improves carbon sinks and is essential for climate action. Peatlands store at least twice as much carbon as all forests. Mangrove soils can bind up to three or four times more carbon than terrestrial soils. Wetlands are currently under a lot of pressure and are

being lost at a rate three times higher than forests. One study suggests that wetlands, if protected, can take care of 14% of greenhouse gas mitigation by 2030. Wetlands also purify water, reduce the risks of floods and droughts, and are home to many species.

Some solutions^[4]

Protect natural flood buffers. Coastal mangroves and wetlands are effective and inexpensive natural barriers to flooding and erosion.

Safeguard water source areas. These are areas where rainwater is naturally collected and flows into rivers, lakes, wetlands, springs and wells. Natural water systems are termed 'ecological infrastructure' because they work like infrastructure for us but are created by nature.

Keep natural water supply systems working properly so they are able to provide humans and other species with water. This includes returning clean water to wetlands, rivers and the sea from our constructed water infrastructure after we have used it.

Harvest rainwater in regions with uneven rainfall, to ensure water supplies for dry periods. Tanks can capture rain coming off rooftops. Dams store water, can provide renewable energy, and prevent floods.

But they also displace communities; waste water through evaporation; create a flood risk if not well maintained; release greenhouse gases through deforestation, cement use etcetera; destroy carbon sinks in wetlands and oceans; deprive ecosystems of nutrients, and destroy habitats.^[5]

Harness groundwater. Exploring, protecting and sustainably using groundwater may be part of adapting to climate change. But people putting in boreholes without a check on the impact on the groundwater may be a bad idea.^[6]

Reuse wastewater. Wastewater can be used for irrigation, in industries and for different purposes in towns and cities. Safely managed wastewater is an affordable source of water, energy, nutrients and other recoverable materials.

Sustainable water management in urban and rural areas will help society adapt to climate change by building resilience, protecting health and saving lives. It can also reduce carbon emissions from water and sanitation transportation and treatment.

Water, sanitation and hygiene (WASH) related climate adaptations.

Be water-wise in homes. In communities without taps in homes, often it is girls and women that are

expected to fetch water. This robs them of time to study, earn a living, be creative, have fun, and rest.

Be water-wise in industries. The CDP Water Watch Index lists the following 30 industries as “critical” (having extreme negative impact on freshwater resources).

- Textiles and fabric goods
- Biotech and pharma
- Fossil fuels (coal mining, fossil gas and oil extraction and refining)
- Manufacturing (including electronic components and electric vehicles)
- Chemicals (including plastics, personal care & household products)
- Metal smelting, refining and forming
- Metallic mineral mining (including bauxite, iron ore, precious metals & minerals)
- Financial services (use of financial services results in the financing of the other “water critical” industrial activities): Asset managers, banks, insurance, real estate investment trusts

Be water-wise in agriculture. Worldwide, and especially in developing countries, agriculture is the largest water user, accounting for 50–90% of all water use. “Agriculture” includes cultivation of crops, livestock farming, and fisheries.

Related to agriculture, the Water Watch Index ranks the water impact of the following activities as “critical”:

- Farming of crops such as cocoa, cotton, fruit, grains and corns, oilseeds, palm oil, rice, rubber, soybeans, sugarcane, vegetables.
- Livestock farming: aquaculture, cattle, poultry and pigs. The Water Footprint Network has calculated that one kilogram of beef requires about 15 000 litres of water – 98% of this is from producing animal feed.
- Food processing (like soybean processing)
- Chemicals (such as fertilisers)

Cooperate across national borders to balance the water needs of communities, industry, agriculture and ecosystems.^[7]

THE WATER CLIMATE ACTION PATHWAY

This Pathway, developed under the UN climate convention UNFCCC, is found [here](#). It has actions to:

- Protect and restore water resources and ecosystems
- Protect people
- Produce agriculture and food
- Produce energy
- Reuse wastewater



YD3 Canal in Adana province, Turkey. Plastic and other waste is seen in a canal during an investigation into plastic waste that was burned in Turkey. The team found plastic packaging from UK, German and global food and drinks brands and supermarkets. Photo: © Caner Ozkan/Greenpeace

What are the water justice issues?

- Water is an **essential public good** and should not be a privatised commodity.
- **Everyone should have enough water** for drinking, cooking, washing and cleaning. The water quality must be good enough for each purpose.
- **Subsistence and smallholder farmers should have access to water** for their crops and livestock.

- **Water insecurity affects marginalised groups** worse. Their participation in water governance can help improve the solutions and their water security.
- There are costs to putting water infrastructure in place, maintaining it, treating the water, and getting water to its end use and back to nature. Those **costs must be spread fairly** across society. Big companies can afford to pay higher prices for water, as can richer people. Polluters must pay to clean up the water they pollute. Cost must never be a barrier to anyone getting enough water for normal life.
- People and local economies destroyed by **extreme weather events** may need help to cope and to re-establish themselves. Think about Hurricane Katrina in New Orleans, the 2022 floods in Pakistan ...
- The United Nations World Water Development Report of 2009 projected that if the climate crisis continues as is, by 2030 water scarcity in some arid and semi-arid places will **displace** 24–700 million people.^[8]

- Competition for scarce water may lead to **conflict**, between countries, between residents and water-intensive or water-polluting businesses, and between people. An example could be the hydropower dam built in Ethiopia reducing the Nile's water flow into Egypt.^[9]

We must organise and plan to meet such challenges with human solidarity, not competition, conflict or xenophobia.

FAST FACTS

Transition trends to do with food

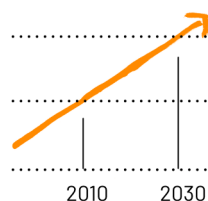
WHAT'S WRONG WITH OUR FOOD SYSTEM?

Every night **1 in 7 people go to bed hungry**—that's almost 1 billion people worldwide. People are hungry not because there isn't enough food produced but because our food system is broken. In fact, **80% of the world's hungry are directly involved in food production**. We can address this hunger if we support small-scale food producers, tackle climate change and reduce food waste.

CLIMATE CHANGE AND FOOD PRICES

The average price of staple foods could more than double by 2030—with more than half of that increase due to changes in average temperatures and rainfall patterns.

Food price rises



High temperatures

In July 2010, temperatures exceeded 40°C in Russia, destroying millions of acres of wheat. Wheat **production plunged 30%** and the **price internationally increased by 85%**.

Drought

In 2010, a drought in Ukraine caused wheat **production to plummet 20%** compared to the year before.

Monsoon

Heavy rainfall and multiple typhoons hit Southeast Asia in 2011, severely affecting 6% of the region's total rice area and **driving prices up by 30%** in some areas.

The food system includes producing, processing, distributing, marketing and selling, obtaining, preparing and eating, and disposing of food. Food systems are being impacted by climate changes, which affects the types of food available where, amounts and quality of food. Depending upon how producers and retailers and consumers respond, **food prices will likely go up**.

WASTE

In both industrialized and developing countries, unacceptable quantities of food are wasted but for entirely different reasons.

Harvest waste

Currently, developing countries waste **nearly one third of food supply**. With better access to adequate storage, refrigeration and transportation this could be reduced.

Developing world: 33%



Consumer waste

In industrialised countries, consumers and retailers throw away **about one third of all food** that is produced.

Industrialised world: 33%



HUNGER

1 in 7 on the planet go hungry



60% of the hungry are women



By providing women with equal access to farming resources such as tools, seeds, and transport, **100-150 million** could have enough to eat

Change can happen

By investing in small-scale farmers, Brazil reduced the number of people living in poverty by 20 million between 2003 and 2009. We can tackle extreme hunger by helping small-scale producers grow more food more sustainably.

Source: [GOOD magazine and Oxfam, 2012](#)[10]

What is food security?

People are food secure when they can always get and afford enough nutritious and safe foods. People should be able to make informed food choices and to get the foods they like. Food access is closely linked to food supply, so food security is dependent on a sustainable food system.^[11]

More than 820 million people are hungry, and 2 billion people experience moderate or severe food shortages. Another 2 billion suffer from overnutrition, a state of obesity from unbalanced diets, with related health impacts such as diabetes and heart disease.^[12]

The IPCC says in mid-century an extra 8 to 80 million people will be at risk of hunger directly caused by the climate crisis, concentrated in sub-Saharan Africa, South Asia and Central America.^[13]

Some organisations call and work for **food sovereignty**. La Via Campesina, a global movement of farmers, defines food sovereignty as “the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.” It recognises food as a right and a public good, not as a commodity.

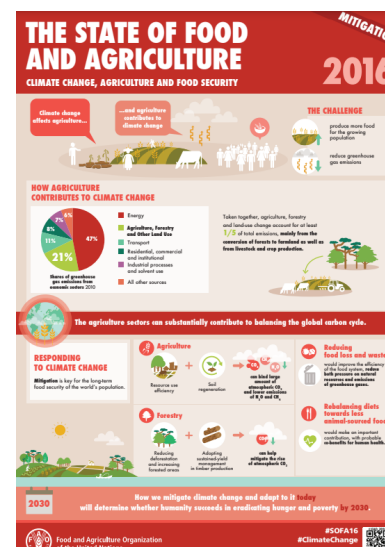
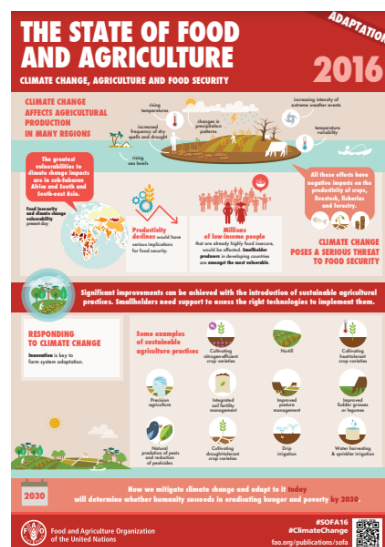
Land, seeds, water, credit and other resources are to be shared equitably.

Food-related climate impacts and some solutions

In 2019 the Intergovernmental Panel on Climate Change (IPCC) produced a Special Report on climate change and land, focussing very much on food systems.^[14] [This video is an untechnical summary of the main issues](#) (English) (time: 9 min).

These 2016 infographics from the Food and Agriculture Organization of the United Nations are available in several languages:

[English](#), [Mandarin](#), [Spanish](#), [French](#), [Arabic](#), [Russian](#)



THE LAND USE CLIMATE ACTION PATHWAY

This Pathway from the global climate convention UNFCCC can be found [here](#). It has actions to:

- Protect land-based ecosystems
- Restore degraded land for ecosystems and agriculture
- Adopt climate-smart approaches in small-scale farming and large-scale commodity production
- Address other land uses such as the extractive industries and urban areas
- Transform agri-processing, transportation of agricultural products, wastage and packaging
- Empower consumers to make choices and adopt behaviours that are healthier and more sustainable for them and for the planet, not just in terms of food but also other products from the land, such as wood.



What are the land and food justice issues?

- **Hunger and malnutrition (including obesity of the poor).** The main cause is poverty combined with a food system designed to maximise profits rather than to feed people enough nutritious food. Stunted development of hungry or malnourished children sets them back for life.
- **Higher food prices** shrink the quantity and variety of food poor people are able to put on their table. People turn to ultra-processed foods as a cheap, convenient and “tasty” alternative to healthy foods as those become more expensive.
- **Low-income countries and poor people are at higher risk**, as they have limited social safety nets

Community food pantry in the Philippines. During the covid pandemic, when many people lost their incomes, the Dumagat indigenous people community set up a food pantry in the city of Metro Manila where they shared their harvest with the inhabitants.

Photo: © Basilio H. Sepe/
Greenpeace

and suffer more from rising food prices and an unstable food supply.

- **Rural communities**, especially smallholder farmers, pastoralists and fishers, are extremely vulnerable in the face of climate impacts because their livelihoods mainly depend on their production.
- **The people who produce our food should be able to earn a decent living** through growing, catching, producing, processing, transporting, retailing, and serving food. Big food businesses squeeze out smaller food producers.
- **Land tenure rights.**
- **Competition for land.** Meeting future food needs requires greater land shares unless we change what we eat and how we grow food. Large-scale land projects that aim to mitigate climate change will increase land competition – reforestation, planting trees and crops grown for biofuels all need land. People at greater risk from land competition are smallholder farmers, indigenous peoples and low-income groups. Amnesty International's 2021/2022 state of human rights report warns of commercial farming encroaching on agricultural land that is not theirs, leaving people without land to grow their own food.^[15]

- **Plants and animals need land too.** Human activity is pushing one million species of plants and animals towards extinction. The global food system is the primary cause. [This article](#) gives a quick overview of the top five drivers of biodiversity loss. At the UN Convention on Biological Diversity Conference in 2022, countries agreed to “effective conservation and management of at least 30% of the world’s lands, inland waters, coastal areas and oceans” by 2030. Currently 17% and 10% of the world’s terrestrial and marine areas respectively are under protection.



Ecological seeds response in Maguindanao, Philippines. Farmers are advised on the amount of organic fertilizer to be applied for every ecological corn seed, during a demonstration in Brgy Looy, South Upi. Indigenous farmers here have been severely affected by natural disasters and are working to recover their food systems.

Photo: © Grace Duran-Cabus/Greenpeace

FAST FACTS

Transition trends to do with energy

Energy and climate emissions

The greatest part of greenhouse gas emissions caused by humans comes from energy: the combustion of coal, peat, oil shale, oil, fossil gas, biofuels and waste; and the gases that escape during the extraction or processing of energy sources (called “fugitive emissions”), for example methane when fossil gas is extracted. We are not going to solve the climate crisis without transitioning away from all this.

What is energy security?

Energy refers to electricity (also called power), liquid fuels used in transport or heating, and solid fuels like wood that people burn to cook or keep warm.

A country, economy or household is said to enjoy energy security when there is uninterrupted availability of energy sources to meet demand at an affordable price. Planners need to take into account future demand for energy, economic developments,

environmental needs and geopolitics when planning and investing for long-term energy security.

Households should have access to affordable, clean, modern energy services that are not harmful to their health.

Electricity-related climate impacts

The impacts of climate changes on electricity supply could be:^[16]

- Global warming is likely to both increase electricity demand for cooling in the summer, especially peak demand during heat waves, and decrease demand for heating in the winter.
- Water temperature could be higher so it can't cool power plants as much.
- The amount of water available to produce electricity or extract fuel will change. Competition for water between energy production and other uses could increase.
- More frequent intense storms could damage power plants, electricity distribution infrastructure, storage facilities, and coal delivery infrastructure and equipment.
- Nuclear power stations on the sea could be affected by sea storm surges.

Some solutions^[17]

Build or retrofit energy infrastructure to be climate-resilient.

Minimise water use in the energy value chain.

Phase out fossil fuels as soon as possible. Halt investment in new fossil fuel exploration and development, phase out fossil fuel subsidies, set phase-out dates for coal power and internal combustion engines, and restrict fossil fuel infrastructure – and immediately reduce methane leaks. The Energy Climate Action Pathway (more below) says OECD countries should phase out coal by 2030 and immediately redirect the international financing towards the energy transition. Non-OECD countries should phase out coal by 2040, recognising that many developing countries will require support for this process.

Massively expand renewable energy. These technologies are cheaper and faster to build, and can cater for decentralised local supply in rural areas that it is very difficult for the electricity grid to get to. Since 2013, renewables have made up the greater share of new power plants built. But renewables expansion needs to accelerate six times faster than it has been.

Create clean electricity transmission grids that can take in and distribute renewable energy from anywhere it is generated to anywhere it is needed.

Electrify other uses of energy like transport, heating and cooling, because we can clean up electricity.

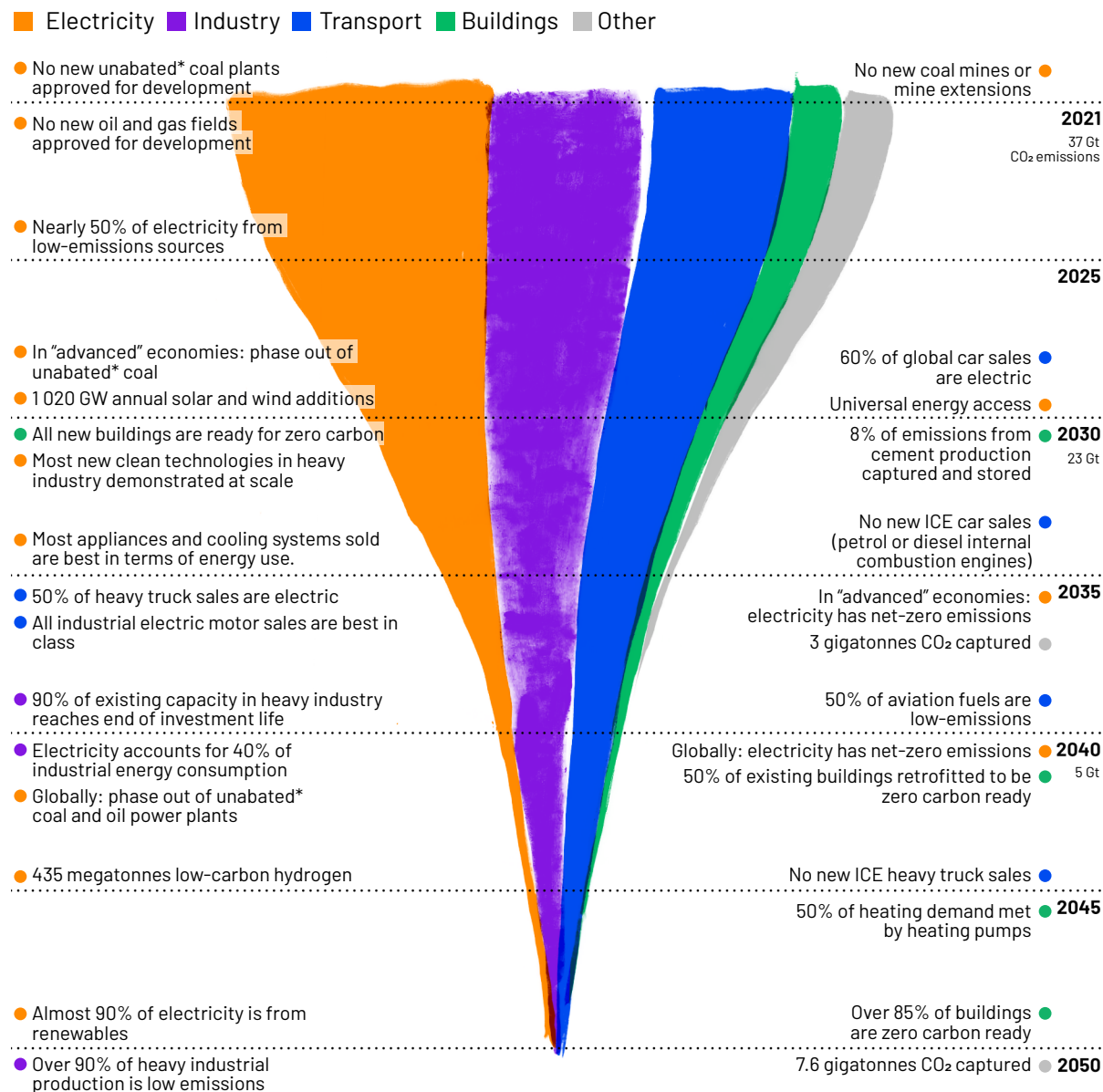
Shift to carbon-neutral liquid and gas fuels for uses that can't easily be electrified. For example, green hydrogen for long-haul, heavy duty transport or industrial heating, and sustainable aviation biofuels. Note “green” hydrogen and “sustainable” aviation fuels – there are risks that taking these new technologies to scale will compete with people and the environment for water and land. Green hydrogen is said to have the potential to create 6 million jobs by 2030.

Reduce energy demand. At least three times more than already achieved over the last ten years. Businesses, industries and households have to become highly energy efficient. This includes how we construct buildings, use energy in production, and behaviour changes particularly among the middle class and rich. In 2021 after Covid-19 lockdowns were lifted, global energy demand increased by 5.4%. This surge was in part met by increased use of coal, resulting in the largest annual increase in global CO₂ emissions from the energy sector ever.^[18]

A ROADMAP FOR THE GLOBAL ENERGY SECTOR

The International Energy Agency (IEA) was first set up by OECD countries. It publishes an annual **World Energy Outlook** based on in-depth technical research, which is taken seriously by energy industries and governments. In 2021, the IEA published a report, *Net Zero by 2050: A Roadmap for the Global Energy Sector*, which “sets out a narrow but achievable pathway for the global energy sector to reach net zero emissions by 2050”. Because much changed in the world of energy, it put out an updated Roadmap in 2022. One may not agree with all its assumptions nor with the IEA’s worldview. For example, it allows for contested **carbon-capture-and-storage (CCS) technologies** as a way to get to net zero. But it is useful to see what it says about what has to happen by when. It may not be fast enough or deep enough.

Key milestones on the pathway to net zero emissions by 2050



Source: [International Energy Agency. 2022. World Energy Outlook 2022. IEA, Paris.](#)
License: CC BY 4.0 (report); CC BY NC SA 4.0 (Annex A).

It is important to note that even the IEA says that from 2021 already:

- No new unabated coal power plants should be approved for development anywhere in the world. By "unabated" they mean that any new coal plants that are approved must be fitted with technologies that reduce carbon emissions, such as CCS.
- No exploration for new oil resources is required in order to meet energy demand.
- No new oil or gas fields are necessary beyond fields already approved for exploitation.

THE ENERGY CLIMATE ACTION PATHWAY

Energy actions recommended by the UNFCCC are available [here](#).

What are the energy justice issues?

- **The phase out of fossil fuels must go along with economic diversification** in countries whose economies are largely about producing fossil fuels.
- **Workers and communities reliant upon fossil fuel value chains must be supported** through the transition, with active labour market policies and social protection.
- **Access to affordable modern energy services to all.** 940 million (13% of the world) do not have access to electricity. 40% of the world does not have access to clean fuels for cooking.^[19] Access includes being able to afford electricity and decent public transport. The poor could get free access.
- **Health effects of energy poverty.** Many poorer households still burn solid fuels like wood, crop residues, dung, charcoal, and coal. The smoke can cause pneumonia, stroke, heart disease, chronic obstructive pulmonary disease, and lung cancer. In 1980 almost 66% of the world's population used solid fuels for their cooking. 30 years later this is down to 41%.

- Besides causing greenhouse gas emissions that drive the climate crisis, **fossil fuels also create local pollution** around mines and processing plants which pollutes water and air, and destroys local communities' health.
- **Ownership of electricity supply and mass transport** is an issue. Because these are services everyone needs, they should be publicly owned and run by the state. In some places these have been privatised or marketised – a development which has intensified during the climate transition. Others argue for “social ownership” such as by community co-operatives. There are interesting papers from the Trade Unions for Energy Democracy on these questions in the Resources section for this Session.

➤ RESOURCES

On [the course site](#) you will find studies, videos and sites dealing with the topics in this session, and all references.



Sindy Maoro with a solar panel outside her home in South Africa. She built her own house two years ago and has been waiting for electricity, but only empty promises reached her house. Solar power has increased her standard of living. Photo: © Mujahid Safodien/Greenpeace

COUNTRY TRANSITION CASE STUDY

Colombia

In view of the important role of coal extraction and exports in the Colombian economy, the focus of this case study is on the energy and extractive sectors. But agriculture, land use and deforestation are also important from a climate transition perspective. Agriculture is an important source of income for Colombia, and 17% of the labour force is engaged there.

According to the World Economic Forum, Colombia is the Latin American country that has made the most progress towards the energy transition. It also has significant potential to generate renewable energy in the regions that are currently dominated by coal mining. However, the country to date has not finalised a national just transition strategy, and phase-out of coal mining and use is not yet under consideration.



Photo [Milo Miloezger](#), Unsplash

Political economy

Coal is an important export commodity

Colombia has the largest coal reserves in Latin America and is the 5th largest thermal coal exporter in the world. It exports 90% of its coal. These exports are critical at a macroeconomic level.

Colombia's coal export strategy is highly exposed to increased climate regulation and energy transition measures in Europe, their biggest market for exports.

This means that 30 000 workers in the coal value chain are potentially at risk of losing their jobs. Additionally, there's the threat of stranded assets.

Meanwhile, electricity generation in Colombia relies largely on hydropower – a power system vulnerable to climate impacts.

In response to these double threats; transition risks to jobs and energy insecurity due to the climate crisis; there has been a push to diversify the electricity mix by increasing the domestic use of coal (and gas). The idea is that this will address the impacts of reduced exports and the vulnerability of the electricity system to increased droughts.

Whilst phasing in domestic coal use is one way of addressing future reduced exports and climate impacts, it shows a disconnect between Colombia's energy policy and its climate commitments.

Coal's contribution to local economies

Coal mines contribute to the local economies of coal extracting regions – particularly the Northeast regions of Cesar and La Guajira – via royalties, employment, and local expenditure. However, the

extent to which these regions benefit is questionable given their pervasive high levels of poverty, exclusion, and the negative social and environmental impacts suffered by people living there.

Lagging development in rural areas

Overall, rural development in poor regions has been stifled for decades due to Colombia's conflict, security problems, and drug trafficking. Despite the peace agreement signed between the Colombian government and FARC (Revolutionary Armed Forces of Colombia) in 2016, paramilitary groups remain a major destabilising force in the country.

Limited focus on justice

Moreover, the current energy transition policy has been criticised for its focus on economic growth rather than justice. The policy is seen as '**green extractivism**', essentially perpetuating the wrongs of the mining industry, namely opening horizons for large companies to install solar and wind farms in certain regions, extracting natural resources from these regions without benefit for the communities and with little income flowing to the State.

Stakeholders and their interests

Government

Since the 1990s, the national government has based its economic policy on the extraction of natural resources, embracing this as a main driver for development. This facilitated the entry and operation of foreign companies into the large-scale extractives sector. During this period, key mining actors strengthened their links with the national political elite, creating a strong alliance between the national government, local elites and the mining sector.

The election of the former guerilla and socialist Gustavo Petro as Colombia's new president (potentially) marks a historic shift. He has promised a focus on peace, social justice, and the environment and aims to reduce Colombia's reliance on oil and coal exports through transitioning to solar and wind energy, while promoting agriculture, food production and tourism to boost the economy. He has also

pledged to stop all new oil exploration and construction of new large-scale open-pit mines.

Business

Trade associations are lobbying for the expansion of coal and gas power in view of future threats of electricity rationing and power outages due to more extreme and frequent droughts that will impact on the country's generation of hydro-power. They also argue that this is justifiable given the low emissions of the present electricity mix.

MINING COMPANIES

Low cost of labour and the lack of environmental legislation made Colombia an attractive investment destination for large multinationals who established their export coal mines in the country. In the past there was a relationship between the armed conflict and the coal mining sector during the paramilitary violence in Colombia, in that both national and foreign businessmen were able to massively buy parcels for the development of mining-energy projects. This history of capital accumulation in the energy and mining industry is a decisive factor in the increase of inequality in the country.

Given this context, the mining companies should take responsibility for their employees that have worked for their companies, and also some responsibility for the recovery of the society affected by the violence of the war. However, there are concerns on how this will play out in light of the actions of Prodeco, a subsidiary of Swiss multinational Glencore. Without any prior consultation with trade unions, local communities and other stakeholders, the company indicated that it intends to cease its coal mining operations in Colombia.

Local communities

In Colombia, most coal extraction occurs in open-pit, capital-intensive, high-impact operations in the Northeast regions of Cesar and La Guajira. Decades of top-down decisions by preceding governments generally excluded the voices of the very communities who were being mined or extracted from. Resulting internal displacement and unequal land distribution were and remain two triggers of Colombia's frequently violent conflicts and still smouldering civil war. There are also real concerns that communities will not

benefit from the investment in renewable energy both ongoing and projected.

[A video of Olga Quintero, ASCAMCAT peasant farmers association, about human rights problems](#) (Spanish with English subtitles) (time: 9 min 52 sec)

Trade unions

Colombia's trade unions were some of the strongest until the 1990s. However, violence, anti-union laws and policies, and massive labour market changes, such as widespread privatisation and a huge rise in the number of people working in informal, insecure jobs, have undermined union organisation. As a result, union membership has halved in less than 20 years leaving only 850 000 trade union members. That means that less than 4% of the workforce is unionised.

[A video of Ruby Castaño, trade unionist from FENSUAGRO](#) (Spanish with English subtitles) (time: 6 min 53 sec)

[A 5 min video about an international solidarity campaign with Colombia's oil workers' union](#) (English and Spanish) (time: 5 min)

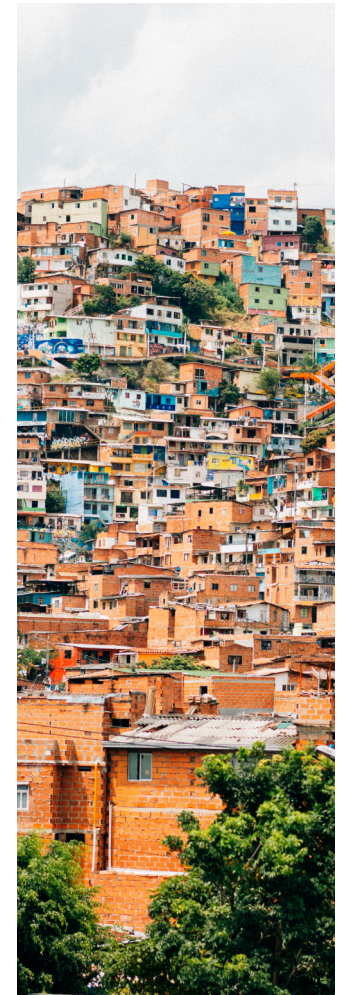


Photo Kobby Mendez, Unsplash

Civil society and activist organisations

In the past actors seeking to limit extractive activities or to influence its governance – such as miners' unions, indigenous communities and non-governmental organisations – relied mainly on opposition strategies such as strikes, blockades and marches. Additionally, indigenous communities have also relied on a judicial mechanism established in the 1991 Constitution to protect citizens from any violation of their fundamental rights to demand prior consultations on mining decisions that could affect them. In recent years, municipal authorities in areas with extractive potential have also engaged in a new form of institutional opposition when they disagree with national government plans for extractive activities within their municipalities.

Justice issues

The climate transition will have a profound socio-economic impact on the mining region in the north of Colombia. **The closure of the coal industry without a just transition** that considers all the actors in the production chain would leave thousands of families without a livelihood. Failure to do so would also ignore the responsibility of companies to provide compensation for the environmental damage they caused and the displacement of entire communities for several decades.

Approximately 60% of Colombia's population suffers from **food insecurity and malnutrition**, which will be exacerbated by the impact of climate change on the agricultural sector. Linked to this is the country's emissions from land use and deforestation which constitutes more than 36% of the country's total emissions and is driven by extensive livestock farming, illegal mining, continuing armed conflict, and the use of wood as fuel in rural areas.

[A video of the impact of Hurricane Iota in Colombia](#)
(Spanish with English subtitles) (time: 2 min 22 sec)

Lastly, and important given their central role in the past, **civil society is under threat.**

The annual number of human rights activists, community activists and trade unionists killed in Colombia



Source: [Justice for Colombia](#) and for 2020–2022 from Colombia's human rights ombud quoted [here](#)

Transition processes

Government led

While Colombia's [National Development Plan](#) (2018–2022) aims to increase coal production and identifies the energy sector, including coal mining, as a principal driver of rural development, it also includes a [Decent Work](#) pillar. This pillar aims to increase the coverage of social protection schemes and promote greater social dialogue that can support just transition measures and the creation of decent, green jobs.

Colombia's Ministry of Environment and Sustainable Development and the UN Development Program in 2020 analysed just transition issues in Colombia's energy, transportation and agriculture sectors. This study informed the development of the just transition strategies in the country's Long-Term Low Emissions Development Strategy.

Colombia's 2020 climate goals – its [Nationally Determined Contribution](#) (NDC) under the Paris Agreement – highlights the importance of a just transition, with a 2023 target for the Ministry of Labour to formulate a national strategy for a just transition of the workforce.

Trade union engagement

In November 2019, the Government and the ILO signed a **Pledge for Green Jobs and Just Transition** which seeks to prepare the country's workforce and private sector for the challenges of “green growth”, with a focus on transforming informal jobs to formal jobs, increased productivity and capacity-building. The pledge also aims to strengthen tripartite dialogue (among the government, employers and workers) and stakeholder engagement to shape public policies for the transition to a green economy.

Civil society initiatives

Although met with scepticism by the communities and underpinned by a belief that the dialogue has been captured by Prodeco, the organisation Improbable Dialogues has been carrying the process "Improbable Dialogue Group on the Future of the Cesar Mining Corridor", in which mining companies, universities and representatives of trade unions and peasants participate. To date it has yielded some initial agreements such as recognising that the challenges that the Cesar region is facing are "structural, varied and complex" and that the transition implies co-responsibility between local and regional actors.

Photo Ricardo Arce, Unsplash



Challenges and successes

✓ Successes

ESTABLISHMENT OF THE FOUNDATION FOR AN INCLUSIVE TRANSITION

Labour groups, communities and civil society organisations can use elements of the National Development Plan and the Pledge for Green Jobs and Just Transition that support social protection and inclusive social dialogue processes.

INCLUSION OF JUST TRANSITION ACROSS NATIONAL POLICIES...

Such as the National Development Plan, the Long-Term Strategy, and Colombia's climate goals (Nationally Determined Contributions), which can help coordinate action related to a just transition in different sectors.

⊗ Challenges

CONTINUED FOSSIL FUEL PRODUCTION

In 2013, the fossil fuel industry contributed [one-third](#) of national revenues. The sector benefits from multiple [subsidies](#), such as tax deductions and exemptions, and the [National Development Plan](#) (2018–2022) aims to increase coal production substantially.

FUNDING THE PEACE PROCESS

The need to fund the peace process, coupled with the opportunity to expand extractive exploration in previous conflict areas, may further promote the development of large-scale coal mining and other fossil fuel-intensive activities.

GUARANTEEING FAIR STAKEHOLDER CONSULTATION PROCESSES

[Concerns](#) over human rights violations and lack of consultation regarding certain large-scale hydropower projects highlight the importance of stakeholder engagement across all policy areas, especially those with potential for significant regional impacts.

South Africa

Political economy

The influence of the minerals-energy industries

Historically, South Africa's economy has been dominated by a “**minerals-energy complex**”, facilitated by the apartheid state. The intertwined minerals and energy industries featured cheap energy based on cheap coal, combined with cheap labour under apartheid, that allowed for capital intensive, highly profitable mining, treatment of raw materials and mineral export. The minerals-energy industry is maintained by an embedded industrial elite: a powerful network of people and organisations within government, state-owned companies, the private sector and the financial sector.



The country's exports are still largely commodities. Coal is the third largest export by value, and provides over 80% of the country's electrical power. Coal-powered electricity, direct coal use and liquid fossil fuels are then key inputs for mining, concentrating, smelting and refining commodities, including gold, platinum, iron and steel.^[1] The minerals-energy sector also provides many jobs, in a context where unemployment is over 35%.^[2]

A 350Africa “Activism” (art and activism) workshop to introduce principles of cultural organising.
Photo: Maryatta Wegerif
Photography

South Africa's economy at a crossroads

The power of the minerals-energy industry gradually began to decline from the mid-2000s. The service sector has grown, with financial and business services now the largest contributor to GDP at around 25%. The economy is characterised by consumption-driven growth, with increased retail. However, this does not reflect growth in local manufacturing, but high levels of household debt alongside imported goods. Economic growth has occurred without similar levels of socio-economic development or employment opportunities. Meanwhile, resource limits of coal, metals and minerals, rising energy prices, and international climate commitments, together mean it is no longer viable for the economy to be reliant on natural resource extraction and cheap fossil fuels.^[3]

Stakeholders and their interests

Government

Since the transition to democracy in 1994, the African National Congress (ANC) has won every national election. It forms a political tripartite alliance with South Africa's largest trade union federation, the Congress of South African Trade Unions (COSATU) and the South African Communist Party (SACP).^[4]

The ANC has always been characterised by a spread of ideologies, bringing together communists, social democrats, Christian democrats, liberals, conservatives and traditionalists among others. Alongside these historical differences, divisions emerged with post-apartheid “state capture”. State capture refers to corruption: businesses being improperly awarded government tenders at national, provincial or local levels, through kickbacks to politicians and government officials emerging in many cases from poverty. This practice came to the fore during the Zuma presidency; eroding government capacity and trust between the

democratically elected state, business and civil society organisations (and within different organs of government).^[5] ^[6]

Ideological differences within the party, alignment with the interests of workers in high-emitting sectors (who are also voters), and involvement in the minerals-energy sector as business shareholders interact with government strategies. Government departments have been clustered in order to align programmes;^[7] but in reality, responsibilities are fragmented between different departments. Climate change has not been mainstreamed into several departments, and therefore does not shape policies for key sectors. Important departments such as the National Treasury (that manages government finances), the Department of Mineral Resources and Energy, and the Department of Trade and Industry are not always on the same strategic page in terms of a climate transition. Further, many local governments, especially in rural areas, lack funding to address key responsibilities, including environmental protection and action to cut climate emissions and adapt to climate impacts. A Climate Change Bill which strengthens laws and rules in this field is expected to be approved by Parliament

in 2023, and aims to increase coordination and mainstreaming of a climate perspective.^[8]

Business

Unsurprisingly in an environment oriented towards the minerals-energy complex, business actors were largely hostile to a low-carbon transition. Fossil fuel and other heavy-emitting businesses dominated early inputs to government policy, seeking to both delay climate action and minimise emissions targets and the carbon tax rate. This includes Business Unity SA (BUSA) (the heavy emitter members), Chamber of Mines, Energy Intensive Users Group, SA Petroleum Industry Association, Road Freight Association, Airlines Association SA, Chemical and Allied Industries' Association, SA Association of Cementitious Materials Producers.

While there are low-carbon alternatives for each sector, this would require substantial new investment, and lobbying against transition was cheap by comparison. With the power of the minerals-energy sectors declining and growing public awareness of the need for a climate transition, this has started to change. Early positive inputs came from business and financial services groups like National Business

Initiative (NBI) and Investments SA^[9] – likely influenced by globalisation dynamics, with international finance trending towards more sustainable investment strategies.^[10] A partnership between NBI, BUSA and Boston Consulting Group has published a series of decarbonisation pathways reports for different sectors, [available here](#). Companies in agriculture and the insurance industry are most aware of the physical impacts of climate change on their businesses.

Trade unions



The four main trade union federations are **COSATU** (1.5 million members in 2022^[11]), **SAFTU** (SA Federation of Trade Unions, about 650 000 members^[12]), **FEDUSA** (Federation of Unions of South Africa, about 500 000 members^[13]) and **NACTU** (National Council of Trade Unions, 400 000 members in 2015^[14]). SAFTU was formed after the 2015 COSATU Congress expelled

NUMSA (Metalworkers), whereafter FAWU (Food and Allied) left, and many SATAWU (Transport and Allied) members also went over. The four federations hold somewhat divergent political views.

Labour's role in the climate transition is complex, owing to the mining-energy complex' historical dominance, its key role as an employer, and the strength of unions associated with mining, minerals and energy. The National Union of Mineworkers (NUM), an important COSATU union, understands the transition imperative, but is defensive about its pace – understandably, given its primary role of protecting mine workers and members in fossil fuel energy.^[15] NUM has faced competition from new unions that are not ANC-aligned, including the Association of Mineworkers and Construction Union (AMCU). The metalworkers' union NUMSA supports renewable energy, but not the privatisation of national electricity supply that is taking place through so-called Independent Power Producers; private companies delivering renewable energy.^{[16] [17]}

FEDUSA adopted its Climate Change Policy at its Congress in 2021, which includes positions on the interaction of climate and gender justice.^[18]

Civil society

Civil society's involvement in the climate transition is characterised by overlapping networks of organisations. One united mass just transition movement has yet to emerge.

- **Life After Coal** is a coal phase-out campaign, focused on reducing emissions from infrastructure and discouraging new coal mines and power stations.^[19]
- **Energy Governance South Africa (EGSA)** is a network focused on advocacy for inclusive, accountable decision-making.^[20]
- **The Million Climate Jobs Campaign** at one point mobilised most relevant trade unions and many community-based organisations. The campaign is hosted by the Alternative Information and Development Centre (AIDC), an NGO which promotes transition via wealth redistribution.^[21]
- **The African Climate Alliance** emerged from the first major youth-led climate protest in South Africa in 2019, and aims to build youth-led climate alliances across Africa.^[22]

- **The South African Climate Action Network (SACAN)** and the **Climate Justice Coalition (CJC)** both coordinate large networks of member organisations working on climate issues. SACAN is largely composed of NGOs and focuses on shaping policy and enhancing members' capacities; while CJC also includes trade union organisations, with a focus on grassroots movement building in addition to climate advocacy.^{[23][24]}
- **The Southern African Faith Communities' Environment Institute** is a multi-faith organisation which coordinates climate and environmental justice initiatives and campaigns across the membership of nine faiths.



Member organisations of the South African Climate Action Network (SACAN).



Protest by the Climate Justice Coalition, photo: 350africa.org

- **A Climate Justice Charter Movement** spearheaded by the Cooperative and Policy Alternative Centre and South African Food Sovereignty Campaign developed a Charter in 2020.^[25]

A Working Class Summit convened by the South African Federation of Trade Unions (SAFTU) in 2018 was attended by over 1 000 delegates representing 147 working-class organisations. The resulting declaration identified the need for a just transition that addresses the interests of both workers in the energy sector and working-class people impacted by climate change.

Justice issues

With the minerals-energy industries employing many South Africans, job losses are a major concern during the transition. However, in a context characterised by triple challenges of unemployment, poverty and inequality, the emerging justice movement and discussion focuses broadly on goals tied to three key resources: land, water and energy; and three interrelated justice principles: distributive, restorative and procedural

justice.^{[26][27]} Each principle is associated with both social and environmental justice concerns.

An example that calls for both restorative and procedural justice is water and air pollution from fossil fuel industries. While local pollution is not a driver of climate change, it is an issue for local communities whose health and livelihoods are affected.

The triple challenges of poverty, inequality and unemployment make South Africa's poor especially vulnerable to the climate crisis. Without energy, water and land security, communities cannot easily flourish nor adapt to climate change. If access to these resources were secured, it would stimulate social and economic development, help to create local enterprises and jobs, and increase sustainable patterns of production and consumption – strengthening resilience and the capacity to adapt.^[28]

South Africa's energy transition illustrates the need for distributive and restorative justice. The state-owned monopoly Eskom – the primary generator and sole transmitter of electricity – historically evolved to serve the minerals-energy complex, while sourcing coal from the same group.

This pattern perseveres. Eskom's 31 largest customers, predominantly in the minerals-energy sectors, consume 44% of electricity, while mining firms that grew out of apartheid supply over 80% of its coal. Eskom's sales for residential consumption account for 20% of sales, with only 5% of that being directed to poorer households. While 85% of households are connected to the grid, compared to 30% during apartheid, many poor households are reliant on the Free Basic Energy provided by the state and they cannot afford to buy more once they run out. This contributes to energy poverty, with negative consequences for health, welfare and education.^[29]

Transition processes

Trade union engagement

Just transition dialogues in South Africa originate with the labour movement. COSATU raised the just transition within its own ranks at its 10th National Congress in 2009, in relation to protecting vulnerable communities from climate change impacts. Then, in its 2011 Policy Framework on Climate Change – which was

adopted by its Central Executive Committee – it called for justice in transitioning to a low carbon economy, focusing on affected workers and communities, the wider working class, and small businesses. Since 2010, its research unit NALEDI has off-and-on run a climate change programme with trade unionists from affiliates across federations, but since the COSATU/SAFTU split this has not gone up the ranks to reach leadership. In 2022, COSATU adopted its Just Transition Blueprint for Workers.^[30]

Trade unions have also made climate-related inputs in NEDLAC, including on the carbon tax and the Climate Change Bill. NEDLAC is a body where the “social partners” (government, business, trade unions, civil society) negotiate agreements pertaining to the economy.

Government led

Within national government, the 2011 National Climate Change Response White Paper introduced the just transition concept as a primary concern for an effective climate response.^[31] South Africa adopted its National Development Plan (NDP) in 2012, to guide policy and planning. It was a framework rather than a plan, that stated that by 2030, the country

should transition to a low-carbon, climate-resilient, environmentally sustainable and socially just society. The National Planning Commission further built on this framework through social partner dialogues in its Vision and Pathways Project between 2017 and 2019. It extended the framework to 2050, developing a shared vision through a series of dialogues with government, civil society, business, trade unions, local communities, and academic experts, with a final report tabled at its concluding conference. Through this process, the closely linked issues of water-, land- and energy security were identified as critical for social justice in the South African context. Key areas of agreement and disagreement were also identified, to guide subsequent negotiations.^[32]

The idea of a **Presidential Climate Commission (PCC)** arose via trade unions in NEDLAC deliberations on the 2018 Presidential Jobs Summit. A Jobs Summit Framework Agreement^[33] agreed in NEDLAC in 2018 included a call for the establishment of a “Presidential Climate Change Coordinating Commission to coordinate and oversee the Just Transition”. The commission would be statutory, in other words, decided, controlled or required by law.

In December 2020, President Ramaphosa formally established the Presidential Climate Commission. It comprised 10 government ministers and 23 representatives from key stakeholder groups, including business, trade unions, civil society, academia, youth organisations and traditional leadership. Its mandate is to provide independent advice, and monitor progress, in South Africa’s climate mitigation, adaptation and just transition efforts. This includes building social consensus on complex decisions, policies and strategies required for a just transition.^[34] One of its products is the **Just Transition Framework**, which was adopted by the Cabinet in August 2022.^[35] Theoretically, this means that the social partners should fall in behind the framework, including government departments.



President Cyril Ramaphosa receiving the Just Transition Framework from members of the Presidential Climate Commission.



Civil society initiatives

See under Civil Society.

Challenges and successes

Challenges

LACK OF COORDINATION

As mentioned earlier, the splitting into factions, ideological differences and fragmented responsibilities across departments and at different levels of government have created significant challenges in coordinating responses to the climate crisis. There are similar dynamics among organised labour.

PATH-DEPENDENCY AND INERTIA

These are inherent problems for a political economy rooted in the minerals-energy industries. Complex finance networks make it especially challenging to shift these old relationships.

Path-dependency means it is difficult to facilitate a just energy transition because of the minerals-and-energy sector's contribution to the economy and employment – the political economy can only be altered effectively by acting on multiple areas simultaneously.

Inertia is a related problem: while the just transition became a core part of South Africa's development strategy more than a decade ago, the Department of Trade and Industry's industrialisation policy still largely depends on using South Africa's mineral wealth. Similarly, government science councils are the country's largest innovation funder, yet despite central commitments to decarbonisation and sustainable development, a large proportion of energy research funding goes to fossil fuels, petroleum and nuclear power. Meanwhile, the Industrial Development Corporation (IDC), the main financing mechanism for industrial investment, which links state-owned enterprises and big private enterprises, has historically directed most financing to large-scale processing of minerals.

✓ Successes

MORE FUNDING FOR RENEWABLE ENERGY.

The flipside is that changing dynamics within these government science institutions are a key indicator of wider structural transformations. It is therefore positive to note that from around 2012, funding dynamics slowly started to shift. For example, by 2014, 40% of the Industrial Development Corporation's funding went to renewable energy projects. The Corporation also played a major role in supporting the growth of the Renewable Energy Independent Power Producer Procurement Programme (although the initiative remains contested by those opposing privatisation under the pretext of greening the energy sector).^[36]

INTERNATIONAL FINANCE FOR THE ENERGY TRANSITION.

Another significant financing success was securing \$8.5 billion (about 7.9 billion Euros) at the United Nations climate conference COP26 in Glasgow, through a partnership with the European Union, France, Germany, the United Kingdom and the

United States. The funding will support a transition of the energy sectors, including to ensure energy security and access.^[37]

OTHER POLICIES TO DECARBONISE THE ECONOMY.

In 2022, the Department of Trade and Industry released a New Energy Vehicle Roadmap developed with the automotive industry, which is a concrete move to low-carbon industrial policy.

CONSULTATION OF GRASSROOTS BY THE PRESIDENTIAL CLIMATE COMMISSION.

The Presidential Climate Commission identified three key priorities during its first year in 2021:

1. Strengthening South Africa's 2030 climate target.

See the commission's recommendations in the graph on the following page.

2. Building a social compact to support the transition. (A formal agreement between the social partners, government, trade unions, employers and civil society.)

3. Implementing the new Just Transition Framework

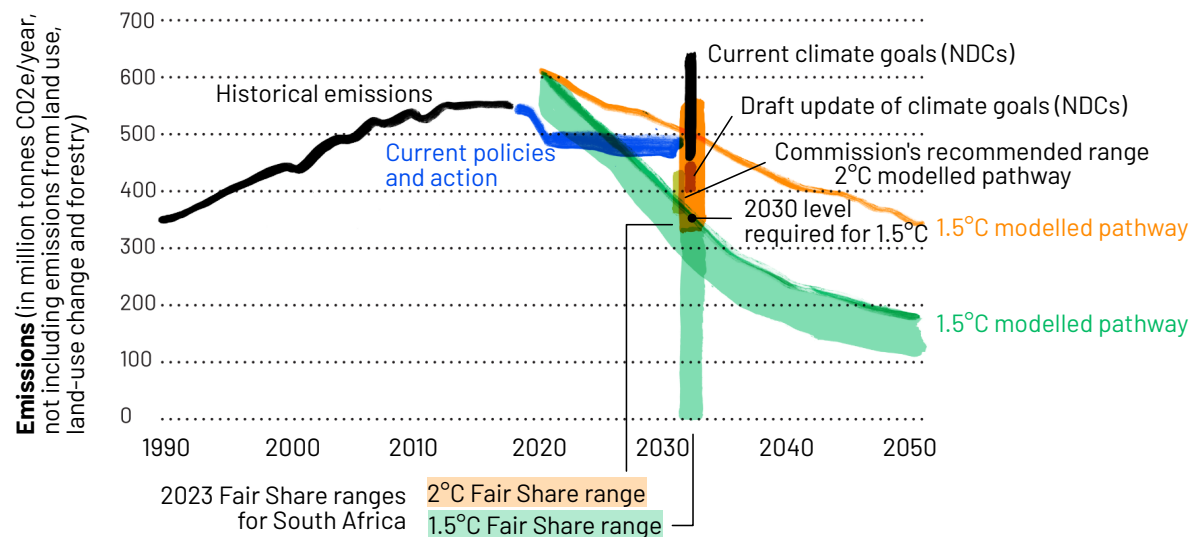
During the development of the Just Transition Framework, the Commission consulted grassroots organisations in eight communities around the country on their concerns and what a just transition should deliver. On the next page are the main points each community raised.

In its final form, the Just Transition Framework creates a single policy framework that sets out the visions, principles, policies and governance arrangements that will guide the just transition, based on agreement from all social partners.^[39]

Moving forward, the focus will shift to implementation: the practical steps to produce the just transition:

- Creating green industries and job opportunities within them, in addition to training and skills development
- Research and innovation to support the transition
- Mobilising finances for the transition, with an initial focus on tracking existing financial flows.

SOUTH AFRICA'S PRESIDENTIAL CLIMATE COMMISSION RECOMMENDS STRONGER CLIMATE TARGETS



Messages on Just Transition from community engagements

Secunda community engagement

Asking for honesty from business & government

- Community ownership of decentralised power supply
- Quantify the potential impact of the Just Transition process & communicate transparently
- Utilise existing skillset from communities
- Revitalise manufacturing sector
- Identify Just Transition ambassadors following community engagements
- Revitalise public transport
- Remove corrupt officials from power
- Create jobs for youth
- Address existing inequalities & leave no one behind

Northern Cape community engagement

Build understanding & cooperation

- Invest time & resources into building understanding of Just Transition process among stakeholders
- Expand the area of engagement to include dispersed community
- Examine implications for job losses under the Just Transition
- Improve cooperation among renewable energy sector & communities
- Use available technology to reduce impacts of mines
- Capture voices of women & youth in the Just Transition Framework
- Critically examine inclusivity
- Increase engagement of governance with communities

Gqeberha community engagement

Nothing for us, without us

- Community ownership of power supply systems
- Grey water recycling
- Additional engagement with communities and others
- Education & awareness
- Skills development
- Improve WASH & waste management systems
- Increased visibility, engagement & response from governance bodies
- Create opportunities for youth
- Leverage indigenous knowledge
- Honesty & transparency in financial tracking & reporting

Xholobeni community engagement

A community divided

- Invest time in understanding community dynamics, conflicting plans for future development
- Engage meaningfully with traditional leadership
- Bring district & local governance to the table
- Demonstrate tangible steps & benefits of Just Transition to build trust

Emalahleni community engagement

Mpumalanga leading the way in thinking about the Just Transition

- Community ownership of power supply systems
- Education & awareness
- Skills development
- Create opportunities for youth
- Engage with communities to understand development needs & wants
- Women play a key role in adaptation & the Just Transition
- Mines & industries need to engage meaningfully with communities
- Demonstrate economic viability of alternative solutions & ensure job creation will meet demand

Carolina community engagement

Rehabilitating a ghost town

- Well-functioning municipality with good leadership
- Clear vision for the Just Transition
- But lack of alignment between levels of government
- Social & economic challenges related to mining & trucking
- Little or no accountability for mines
- Involve communities in rehabilitation efforts
- Back-to-basics agriculture to safeguard food security
- Build collaboration & consensus between mining, farming & tourism sectors to develop way forward
- Opportunities & skills development for youth

Lephalale community engagement

What does life look like after coal?

- Understand the economy-wide impacts of the Just Transition
- Use demonstration cases to examine feasibility of alternatives
- Use available technology to reduce impacts of mines & power stations
- Safeguard existing value chains
- Prioritise skills development for youth
- Urgently address basic service delivery issues
- Use district model to implement the Just Transition dialogue
- Make space for indigenous knowledge and related life systems
- Invest in agriculture & safeguard arable land

Durban South Basin community engagement

A community surrounded

- Community ownership of decentralised power supply systems
- Use available technology to reduce impacts of refineries & other industry
- Integrate repair mechanisms into policy
- Government to engage meaningfully with community
- Redevelop existing infrastructure & balance environmental goals
- Make use of skills base available within community
- Industry to be held accountable to fenceline communities
- Industry to engage with communities regarding refinery closure, rehabilitation & compensation

➤ RESOURCES

There is interesting information about South Africa in the booklet “A Just Transition for the Global South: Learning from alliances and movements in the Philippines and South Africa” by the Palme Center and SOLIDAR. [Find the full report in English and summaries in English and Spanish here](#)



Spain

Political economy

A global initiator of Just Transition discussions – out of necessity

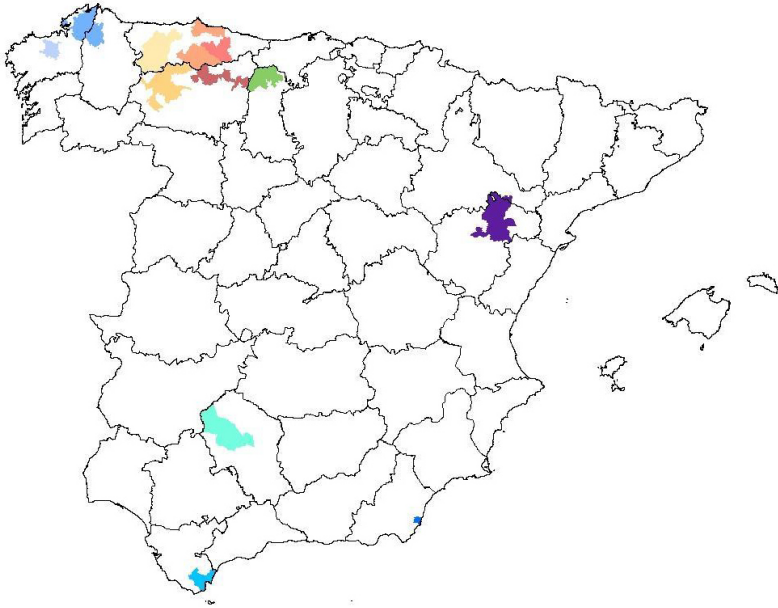
Since Spain became a democracy in 1975, its economy has grown to the fourth largest in the Eurozone, and its diverse industries include manufacturing, financial services, pharmaceuticals and a large tourism sector.^[1] The population is 47.3 million people,^[2] with 4% employed in agriculture, 20% in the industrial sector and 76% in the tertiary sector (mainly tourism and banking).^[3]

Two key features are important for its transition to a low-carbon economy. Firstly, it has a high unemployment rate of 13.5%.^[4] Secondly, the coal industry has been declining since the late 1990s and employs 1 700 people today compared to 45 000 in 1990. While this is a relatively small proportion of its whole population, there are two critical issues here. Firstly, mining is concentrated



in a few towns and regions, causing extreme local distress, with depopulation in mining towns of up to 40%. And secondly, this decline started around 30 years ago, and was driven by various factors including government policy and international economic competition. Many of the remaining coal mines only continued due to tax-funded subsidies – 22 billion euros from 1992 to 2014. But subsidies are increasingly being withdrawn based on European climate policy.^[5] Therefore, Spain started experiencing the social and economic pressures that occur during a climate transition well before many other countries. This may have contributed to it being a global initiator of just transition discussions and policies. The major concerns for Spain's just energy transition are job creation, and economic and environmental regeneration in regions where mines have closed.

Flash mob by Alianza por el Clima, who set up a “beach” in the central Plaza de Callao in Madrid, raising awareness about extreme temperature increases associated with climate change.



Areas in Spain where [Just Transition Agreements](#) are in development as at 1 May 2023 for the closure of coal or nuclear plants.

Stakeholders and their interests

Government

Spain is a constitutional monarchy, with the monarch's role being mostly ceremonial. Formal politics are exercised through a parliamentary democracy. Power is highly decentralised, with 17

autonomous communities and two autonomous cities that have substantial influence over internal political and financial decisions.^[6]

Spain is a notable example of a formal, managed just transition process, because the government has developed an entire administrative structure to oversee and implement the transition: the **Ministry for Ecological Transition**. It works alongside the Ministry for Labour, Migrations and Social Security, and the Ministry of Industry, Tourism and Trade, to coordinate activity across all levels of government, from general state administration to autonomous communities to local government; and to initiate inclusive, participatory involvement from all areas of society, including businesses, trade unions, educational institutions, and civil society organisations.^[7]

These structures were primarily established between 2018 and 2020 and are a result of sustained efforts of many groups and meetings nationally and internationally, with trade unions at the forefront.^[8]

Business

Spain's just transition, at present, focuses almost exclusively on the energy sector, and is

a top-down process. Because Spain is a member of the European Union (EU), it is obligated to comply with EU climate policy, and also thereby receives significant funding to support decarbonisation efforts. The primary business interests are mines and energy producers (which will be affected by mandated closures), and financial institutions such as Santander, BBVA, CaixaBank and Repsol Foundation. These financial actors influence transition funding sources and incentives through cutting funding for non-renewable energy sources; through direct investment in renewable energy projects; and through encouraging private investors to shift their funding. Government policy and funding, in concord with the EU, orchestrates this change in business activity; businesses outside the energy sector have little interest in decarbonisation or just transition.^[9] One of the most innovative schemes is Just Transition tenders, which provide grid access for private renewable energy projects based on combined socio-economic and environmental benefits. This makes use of market-based competition, but shifts the focus away from solely maximising profits, towards synergy between profit and public good.^[10]

Trade unions



Two federations in Spain capture the majority of trade union membership: the post-communist **Confederation of Workers' Commissions (CCOO)** and the social democratic **General Workers' Federation (UGT)**. Both federations have around 900 000 members.^[11]

Historically, these two federations were politically antagonistic. CCOO formed in the 1950s, played an important role opposing the fascist dictatorship, and had a close relationship with the Communist Party; while the UGT was formed in the 1880s but largely dispersed during the dictatorship, and was allied to the Socialist Party (PSOE). Since the 1990s, their political differences have become minor, and they generally function in unison; forming the bedrock for labour relations that are stable, institutionalised and democratic.

Strength of other trade unions is region-specific. For example, in Galicia, **the Galician Trade Union Confederation (CIG)**, which emerged from several smaller regional groupings, is equal in strength to CCOO and UGT, while in Basque Country, the two

nationalist trade unions, **Basque Workers' Solidarity (ELA-STV)** and **Nationalist Workers' Committees (LAB)**, respectively social Catholic and separatist, are stronger in combination than CCOO and UGT.^[12]

In general, like with Spain's administrative power, trade unions are characterised by localisation. For example, CCOO's organisational structure is segmented territorially, at local, provincial, regional and national levels, and by sector, from local unions in a company to the federal branch.^[13] Both CCOO and UGT support social dialogue as a method of political organisation, and have been active in just transition processes through these dialogues within Spain, and at international trade union conferences.^[14]

Civil society

There is also a strong civil society movement in Spain. Formed in 2015, **Alianza por el Clima** has more than 400 member organisations. They represent trade unions (CCOO, UGT, USO), development and social justice organisations (ATTAC, Oxfam Intermón, Caritas, ONGAWA, Manos Unidas, REDES-ONGD), energy organisations (Fundación Renovables, Platform for

a New Energy Model), the environmental and justice movement (ECODES, Ecologistas en Acción, SEO/BirdLife, Greenpeace, WWF, Friends of the Earth, Spanish Association for Environmental Education and others), farmers and rural areas (UPA, COAG, Spanish Society for Organic Agriculture, Spanish Network for Rural Development), consumers' organisations (CECU, ASGECO, OCU), and Fridays For Future (FFF)/Youth for the Climate. The Alliance promotes the transition towards a renewable, efficient, sustainable and fair energy model that guarantees universal access to energy. It raises awareness on the need for political climate action among citizens and the different political groups.

You can [find the Alliance's Manifesto here](#) and its [proposals for immediate climate action here](#) (in Asturian, Spanish, Catalan and Galician).

Transition processes

Trade union engagement

At the time of the United Nations climate conference COP3 in 1997, the Spanish government had not committed to social and economic justice alongside

the energy transition. However, it was already clear that reducing emissions would significantly impact the entire Spanish economy, leading to many job losses and economic hardship if nothing was done to mitigate these impacts. The Spanish Trade Union Confederation of Workers' Commissions (CCOO) – led by Joaquín Nieto, also the representative of the European Trade Union Confederation – promoted a just transition approach. This involved opposing the position of US trade unions, who opposed the outcome of the climate conference, the Kyoto Protocol, where richer countries agreed to specific targets for cutting their emissions of greenhouse gases.^[15]

This was important for a global agenda on justice in implementing decisions under the United Nations Framework Convention on Climate Change. It also demonstrates the value of international working-class leadership for the just transition. Countries with stronger labour power and trade unions can influence international agreements, to ensure that policies favourable to the working class are implemented in their own countries and abroad.

In 2005, COP3's Kyoto Protocol, the international treaty requiring industrialised countries and economies in transition to reduce carbon emissions, came into force in Spain. Again, trade unions took initiative. Based partially on the advocacy experiences from 1997, an institutionalised model of dialogue was developed, for agreements to be reached through dialogue between the social partners. It aimed to create a participatory process for decision-making between diverse social groups. The approach was agreed upon by ministries of environment, labour and industry; trade union groups; and industry, business and employers' groups.^[16] The idea is that dialogue and confederation mechanisms can work in situations where groups have unique and diverse interests, but everyone's interests are best served through collective action and agreement. This approach is thought to allow for the direct, participatory application of democratic power.

Government led

The developments initiated by the trade unions culminated in two landmark events in 2018: the creation of the **Ministry of Ecological Transition**, headed by Teresa Ribera, and then the establishment of the **Just Transition Institute**, headed by Laura

Martín Murillo. This was important for formalising the just transition within Spain, and because Ribera and Murillo are leaders who bring expertise, internationally recognised credentials and mobilise considerable popular support. Ribera was one of the architects of the Paris Agreement at COP21 in 2015. Murillo was co-founder and director of the International Labour Foundation for Sustainable development, and helped organise the first and second global Trade Union Assembly on Labour and Environment. At the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012 (Rio+20), which occurred parallel to the second Trade Union Assembly, the United Nations adopted the just transition concept that trade unions had advocated for.^[17]

Momentum has since increased, and the Spanish government presented **The Strategic Framework for Energy and Climate** in February 2019. This is a formalised regulatory framework for decarbonising Spain's economy along with mechanisms to promote decent work and social cohesion. Job creation, financing and social development schemes have two justice considerations: firstly, vulnerable populations, such

as youth and the unemployed; and secondly, regions whose economies were based on fossil fuel industries.^[18] In other words, the Framework acknowledges the need to uplift specific social groups, regardless of where they live, alongside the need for development plans for certain regions.

Two innovative governance tools have been developed for these purposes, **the Institute for Just Transitions** and the **Just Transition Agreement**.

THE INSTITUTE FOR JUST TRANSITIONS

The Institute for Just Transitions organises social dialogue with local stakeholders, including trade unions, business organisations and local governments. It has two functions:

- It drives the energy transition through restructuring (e.g. closing coal mines and installing renewable energy infrastructure), while ensuring environmental commitments are met.
- It coordinates initiatives for alternative sources of employment and economic activity to replace those lost during the transition, ensuring the process is socially just.

THE JUST TRANSITION AGREEMENT

The Just Transition Agreement contains tools, mechanisms and policies. It includes strategies for economic diversification and skill specialisation, investment, and land restoration schemes that are ecologically and socially beneficial. With political power being highly decentralised in Spain, it is required that the Agreement's outputs are very specific to local contexts and that participatory processes are followed: issues are discussed, and justice commitments are agreed upon, in line with a vision for the future developed by the local community.

Specifically of note is that combined public and private initiatives are creating far more opportunities for companies and workers than are being lost through closures.^[19] This demonstrates the value and social energy that can be mobilised through guided, participatory processes that bring together governments, businesses, trade unions and the wider public, and show that just transition initiatives can be a vehicle to enhance the interests and power of the working class. This is supported by the fact that trade unions involved have said that debating principles, risks and opportunities

with comrades from other unions has made them sharper and more unified, and gives them active leadership in steering the future of the country.^[20] These wider benefits also extend into governance and education. The participatory nature of the just transition has increased governance transparency and accountability because of constantly creating up-to-date documents about the process.^[21] Meanwhile, curricula for secondary education, vocational training and higher education are being updated, providing theoretical education about ecological transition alongside developing practical skills for green industries.^[22]



[Mine of Tormaleo](#) in Asturias, where mine restoration is occurring. Native vegetation will be recovered, along with a lake, and trails are being built together, creating a region that is ecologically healthy and will support tourism.

Challenges and successes

Challenges

While Spain's just transition process has been inspirational in many ways, it is not without limitations.

THREE ISSUES ARE CRITICAL FOR THE FUTURE:

DIVERSIFYING BEYOND ENERGY

The focus has been almost entirely on the energy sector. This makes sense, because it is the most pressing industry from a climate perspective and because it is crucial for the functioning of the entire economy.^[23] However, for the same reason, it remains to be seen whether similar urgency and commitments to social and economic justice will manifest in other sectors, where threats of economic disruption are not present.

THE DIGITAL TRANSITION

There is another transition occurring alongside – and interacting with – the ecological transition: the digital transition. This involves the digitisation (including automation) of functions that were previously performed manually and affects every industry. So far, it has been felt most acutely in the manufacturing sector: between 2000 and 2014, 41% of manufacturing jobs were lost, and employment in the sector dropped from 17.8% to 10.4%.^[24] While Spain's ecological transition education includes content on digitalisation, current social and economic initiatives do not address it.

GLOBALISATION

Intersecting with the previous two issues, are questions of economic growth and global power dynamics. Declining employment in manufacturing results not only from automation and digitalisation, but also globalisation: manufacturing operations migrate to less developed regions where labour is cheaper.^[25] This shows that while extractive dynamics between the Global North and South benefit capitalists in wealthier, more developed nations, benefits do not accrue to these countries' working classes in the same way.

This dynamic should be considered carefully because of the physical resource limits of materials required for renewable energy; the continued demand for economic growth, linked to physical production and consumption; and how these interact. This includes the mining, processing and use of metals and minerals for renewable energy systems – which create economic benefits for specific people in certain areas, and environmental damage that specific communities must bear.^[26] In other words, the industries created during transition processes should be interrogated, and their economic success should be measured in material benefits to all people; they should not serve wealth accumulation for Global North capitalists or be measured with concepts like GDP that ignore wealth distribution.

SOLIDARITY EMERGES AS A CRUCIAL THEME FOR OVERCOMING THE CHALLENGES AHEAD:

National cross-industry solidarity will be vital – civil society organisations and workers from other sectors will need to support affected workers and ensure there is sufficient pressure to achieve just outcomes.

Solidarity around this issue is similar to that above, but swift action is important here. If automation replaces the need for human labour, then trade union bargaining power will diminish. It is crucial for trade unions to actively influence policy before this happens, and for solidarity with sectors where labour power has already diminished.

Two pressing responses to the dynamics of globalisation are needed:

- Internationalist working class solidarity, sharing lessons and initiating dialogues.
- Rethinking development models – away from focusing on economic growth in isolated countries; towards inclusive models that balance social needs and environmental impacts, with greater focus on cooperation over competition between economies.

✓ Successes

To date, climate commitments for 2030 achieved through Spain's just transition plans include:

- A 23% reduction in greenhouse gas emissions relative to 1990;
- A 74% share of renewable energy generation;
- Alongside, employment should increase by 1.7%, adding up to 348 000 jobs per year.
- 250 million euros have been secured for workers in mining regions, covering early retirements, retraining for green industries, and employment in environmental restoration.
- A further 2.13 billion euros have been provided to compensate for the social and economic impacts of closing 26 uncompetitive coal mines, affecting around 1 700 mine workers.^[27]

In 2021, the Spanish Government launched a citizen Assembly for Climate. It contains 100 people, selected to represent the diversity of Spanish society, alongside independent experts who provide support and advice. The group met for six four-hour sessions, and produced 172 just transition recommendations, which will be presented to the Spanish parliament.^[28]

[Watch this video to learn more.](#) (Spanish)

(time: 3 min 21 sec)

The story of Spain's just transition provides hope. It has demonstrated the efficacy and resilience of broad-based popular power, achieved through dialogue and collaboration across different sectors of society, with trade unions and the working class occupying key roles in leadership. In particular, Spain's just transition period has intersected with both the 2008/9 Great Recession and the COVID-19 pandemic, both of which threatened to derail progress. However, in both periods, solidarity and resolute pressure maintained momentum at both national and international levels, contributing to the just transition's inclusion in the landmark Paris Agreement at COP21, and preventing delays or budgetary changes following the pandemic.^[29] This provides a key lesson for transitions in other countries. While governments and businesses have greater financial and direct legislative power, trade unions and civil society have greater numbers and a more direct stake in the outcome. Through continued dialogue, solidarity and leadership, the working class can not only prevent losses during transitions, but use just transition movements as an opportunity to shape more just and democratic political economies.

Session 1.3

Developing an agenda for justice in the transitions

This session focuses on men's and women's position in the economy and society, and how the way we address the climate crisis might affect gender equality. The session also explores issues of livelihoods, jobs and decent work in the transition.

After this session, participants will be able to:

- Identify social justice issues and workers' concerns that should be considered in the climate transition.
- Research “gender just” transition projects around the world and reflect on what you feel inspired to try out in your context.
- Develop shared principles to underpin a Just Transition.
- Reflect on which Just Transition principles that are especially relevant to you.

Activity 1.3.1:

Surface justice issues

Each participant gets a turn to talk:

- Speak about a justice issue in the climate transition that arises in your context, from the point of view of your organisation. (5 min per organisation)

TIPS FOR TRAINERS



As people speak, write up one or two words that capture the key ideas on sheets of newsprint or a whiteboard. Group similar issues together. At the end everyone can see clusters of justice issues.

If there are many participants, let about 7 people speak and then ask if anyone can think of a justice issue that has not been mentioned so far.

If the workshop is online:



Use an online whiteboard to write up and group their ideas. Or use an online wordcloud.

Action on climate induced migration at #COP22. Climate Justice groups call for protection of climate displaced peoples and communities
© Lise Masson, Friends of the Earth

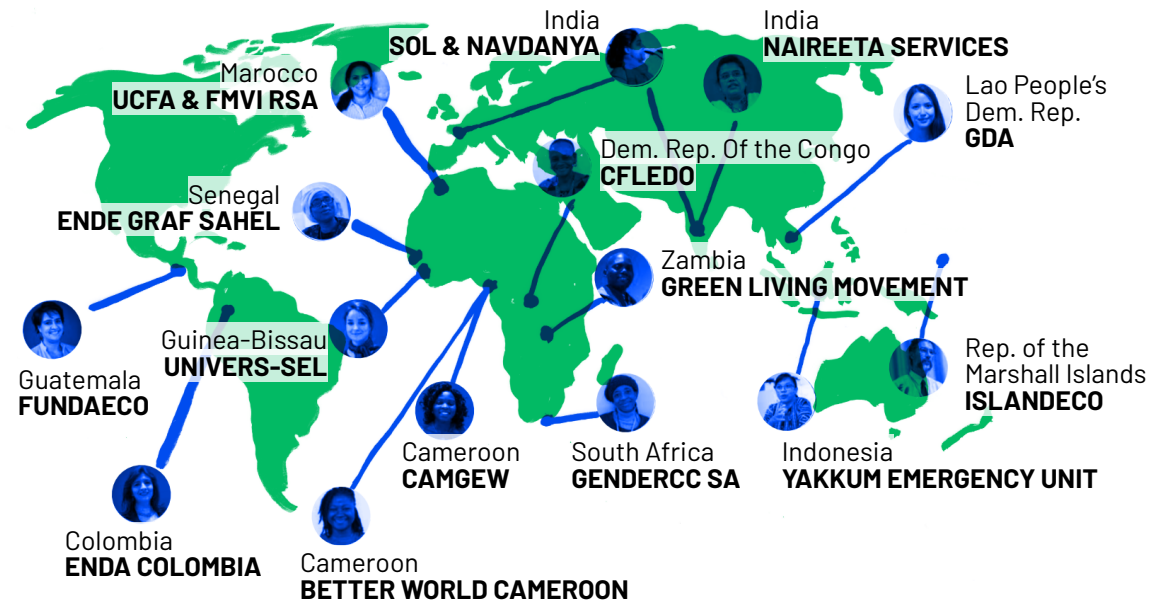


Activity 1.3.2: Integrating gender justice in climate action



The transitions to low-carbon and climate-resilient economies are an opportunity to make structural changes that address the justice issues you have raised. The issue of gender inequality is one such. Let's have a look at some examples to inspire us. These are projects awarded by Women Engage for a Common Future and the Women and Gender Constituency of the United Nations Framework Convention on Climate Change (UNFCCC). Since 2015, they have made these awards to showcase climate-resilient development models that bring multiple social and environmental benefits. <<

1. Pick one of these initiatives and read about it: (10 min)



- [In English](#) (the case studies are on pages 9 to 23)^[1]
- [In French](#)
- [In Spanish](#)

If you find it difficult to read in these languages, just google "examples of gender equality in climate action" in your preferred language.

2. Present the initiative: (7 min per speaker)

- Say what inspires you about the project
- How does it help with the climate transition, or protect people against climate impacts?
- In what ways is it “gender just”?
- What other justice issues does it address?

TIPS FOR TRAINERS

If the workshop is in person, you will need to make sure that participants have access to the internet and data to be able to read about the initiatives.

It does not matter if not all initiatives are picked, nor if many people pick the same initiative. If more than one person picked the same initiative, each one can answer one of the four questions about it. And the others can add on if their answer is different.

Call for the presentations by continent. That way the contexts will be somewhat related. After each continent is done, anyone from that continent can comment about what they learnt from the presentations that they might try in their organisation or that they don't think would work for them. (Add a few minutes extra to the exercise for this.)

There are no initiatives in North America or Europe included in the resource above. If the workshop includes only people from either of those, they could learn from other parts of the world, or see [this page](#)^[2] which has an initiative in Turkey (page 10) and in the US (page 29).

If the group is big, you might want to divide it into two, with one facilitator in each group.

Activity 1.3.3:

Develop shared principles for a just transition

1. GROUP DISCUSSIONS

The Tools for Trainers below has a set of worksheets to use in this activity, one worksheet per page. Each worksheet has a set of principles for a just transition, taken from various sources. Each row has principles on a related topic. (5 min for facilitator to explain activity)

Work in groups as follows – six groups in total:

- Economy (3 worksheets)
- Work, How we live
- Water, Food, Energy, Mobility, Health, Culture/traditions/land (2 worksheets)
- Climate justice, Social justice
- Solidarity
- Geopolitics/imperialism, Participatory democracy

Someone in each group must volunteer to write up and report back the key ideas from the group, and in particular the principles the group wants to adopt. This is “the reporter”.

Read and discuss the ideas on the worksheet/s: (30 min in groups)

- What ideas does the group agree with?
- What ideas does the group have problems with?
- Are there other principles or ideas that are missing?
- What principles are you going to adopt for your just transition?

2. ROTATE AND SHARE (20 min per rotation)

The reporters now all leave their own group and move to the next group.

Each reporter tells the new group which theme/s they have been working on, and what principles their original group proposed to adopt on that theme. The group debates and refines the ideas. The reporter notes strong disagreements and new ideas.

Repeat this until all reporters have been to all other groups. Like this:

3. PLENARY DISCUSSION (45 min)

The reporters state their theme and give feedback about what principles are proposed from their original group and ideas added in the 'rotate and share'. It is also useful to note what the issues are that people could not agree on.

Can the participants find some common ground? Everyone does not have to agree on everything, but try to find some uniting principles. It is useful to have fewer focused principles that everyone can rally around.

	Economy group	Work group	Water group	Climate justice group	Solidarity group	Geopolitics group
<i>Discuss worksheets</i>	Economy reporter→	Work reporter→	Water reporter→	Climate justice reporter→	Solidarity reporter→	Geopolitics reporter→
<i>Rotate #1 and share</i>	Geopolitics reporter→	Economy reporter→	Work reporter→	Water reporter→	Climate justice reporter→	Solidarity reporter→
<i>Rotate #2 and share</i>	Solidarity reporter→	Geopolitics reporter→	Economy reporter→	Work reporter→	Water reporter→	Climate justice reporter→
<i>Rotate #3 and share</i>	Climate justice reporter→	Solidarity reporter→	Geopolitics reporter→	Economy reporter→	Work reporter→	Water reporter→
<i>Rotate #4 and share</i>	Water reporter→	Climate justice reporter→	Solidarity reporter→	Geopolitics reporter→	Economy reporter→	Work reporter→
<i>Rotate #5 and share</i>	Work reporter→	Water reporter→	Climate justice reporter→	Solidarity reporter→	Geopolitics reporter→	Economy reporter→

TIPS FOR TRAINERS

The groups are named after the first topic on the worksheet that they must use, to help them to find where to start.

If the workshop is online:

- Set up six online groups named “Economy”, “Work”, “Water”, “Climate justice”, “Solidarity” and “Geopolitics”. After explaining the activity, let Zoom (or whatever online platform you are using) randomly allocate people to groups.
- Pop in to each group to check everyone understands and is working with the right worksheet/s, and has a reporter.
- When it is time for groups to rotate and share, the reporters must all come back to the main meeting. Send the Economy reporter to the Work group, the Work reporter to the Water group, the Water reporter to Climate Justice, the Climate Justice reporter to Solidarity, the Solidarity reporter to Geopolitics, and the Geopolitics reporter to Economy. Repeat until all reporters have gone to all groups.

Debating the principles is part of the process of participants creating a shared agenda. That is more important than whether there is

a written product of agreed principles as an outcome.

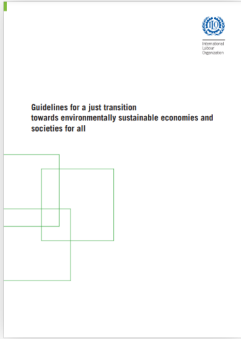
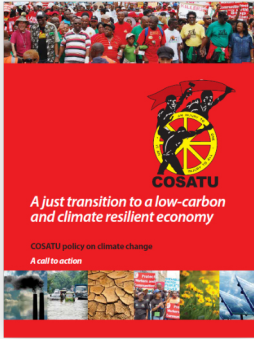

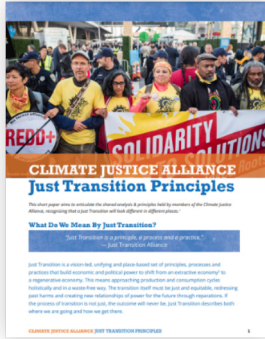

By the time everyone gathers back in plenary, everyone has had a chance to discuss everything, so they will themselves have found consensus or not. The reporters will highlight agreed principles and areas of divergence. Where there is strong agreement, reflect that back to the group. If the same or similar idea comes up from different reporters, reflect that back to the group. At the end, summarise what the main consensus points were. If there are strong divergences, ask participants what they want to do about that. It will be helpful to have two facilitators for the plenary discussion, one to manage the reporters making inputs and another to make notes and reflect consensus back at the group. This second role could be played by a leader of the organisation.

The workshop may need to elect a group of people to work on a document of principles to bring back to a future meeting for adoption. Such a draft document could also be taken to wider groups in society for discussion, which in itself serves to build social consensus and a movement behind a just transition.

TOOLS FOR TRAINERS

The Just transition principles' worksheets starting on the next page are also found in digital, writable format on the [course site](#).

Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
	 <p>From a 2015 ILO paper 'Guidelines for a just transition towards environmentally sustainable economies and societies for all'.</p> <p>Full document</p>	 <p>From COSATU's 'Policy Framework on Climate Change' adopted in 2011. More detail on each principle here (pages 52–59). COSATU is a South African trade union federation.</p>	 <p>A 2020 Climate Justice Charter developed in South Africa. See more here. The process was led by South African Food Sovereignty Campaign and Cooperative and Policy Alternative Centre; several organisations were involved.</p>	 <p>From the US Climate Justice Alliance formed in 2013.</p> <p>More about the alliance</p> <p>List of members</p>	 <p>From the Feminist Agenda for a Green New Deal, a coalition of US women's rights and climate justice organisations that came together in 2019. See feministgreennewdeal.com</p>
INTRODUCTION	<p>"The following principles should guide the transition to environmentally sustainable economies and societies:"</p>	<p>"A just transition means changes that do not disadvantage the working class worldwide, that do not disadvantage developing countries, and where the industrialised countries pay for the damage their development has done to the earth's atmosphere. A just transition provides the opportunity for deeper transformation that includes the redistribution of power and resources towards a more just and equitable social order."</p>	<p>"We face many crises, but the climate crisis is the most dangerous. Through addressing the climate crisis, which affects everything, we can also advance solutions to all socio-ecological crises and more generally end the war with nature. Systemic alternatives are necessary to address the causes of climate change, its risks and pressures for systems collapse. ... Every community, village, town, city and workplace has to advance the deep just transition to ensure socio-ecological transformation."</p>	<p>"Just Transition is a vision-led, unifying and place-based set of principles, processes and practices that build economic and political power to shift from an extractive economy to a regenerative economy. This means approaching production and consumption cycles holistically and in a waste-free way. The transition itself must be just and equitable, redressing past harms and creating new relationships of power for the future through reparations. ... Just transition describes both where we are going and how we get there. Understanding that just transition will look different in different places, ... a core set of shared principles can strengthen our collective work."</p>	<p>"The climate crisis has emerged from interlocking systems of capitalism, resource extraction, labour exploitation, the commodification of nature, settler colonialism, imperialism, militarism. ... To truly address the root causes, as well as the scope and scale of the crisis, the Green New Deal must ... advance a transformative feminist agenda that centers the leadership of women, and addresses impacts of colonisation and anti-Black racism. ... end oppression against and be led and articulated by frontline, impacted communities – women of color, Black women, Indigenous women, people with disabilities, LGBTQIAP+ people, people of the Global South, migrants, refugees, youth."</p>

Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
ECONOMY: PROBLEM DESCRIPTION		<i>Capitalist accumulation has been the underlying cause of excessive greenhouse gas emissions, and therefore global warming and climate change.</i>			<i>Systemically confront exploitative and unsustainable production patterns: The roots of the climate crisis lie in an economic system that encourages corporate greed, unsustainable production, and profit-seeking over the well-being of people and the planet. Globally, this system further entrenches neocolonial patterns of power and production between North and South countries and within settler-colonies like the United States.</i>
ECONOMY: NEW GOALS	(d) Coherent policies across the economic, environmental, social, education/training and labour portfolios need to provide an enabling environment for enterprises, workers, investors and consumers to embrace and drive the transition towards environmentally sustainable and inclusive economies and societies.	<i>A new low-carbon development path is needed ... [E]very time we think of economic expansion and the creation of jobs ... we must think about how the activity can either contribute to reducing carbon emissions, or can contribute to managing the consequences of climate change. ... We also need to start thinking even more seriously about focusing production and consumption on meeting basic needs. ... We need to start thinking of measuring growth not in money terms ("gross domestic product") but in terms of targets for housing, health, education, access to services, and even in terms of leisure, happiness and wellbeing.</i>	<i>Beyond mainstream economics: ... Our economies have to serve our needs as socio-ecological beings and the needs of ecosystems. We need an economics that takes into account ecological footprints, happiness, well-being, the resilience of ecosystems, the commons, and planetary boundaries.</i>	<i>A just transition requires regenerative ecological economics: Just transition must advance ecological resilience, reduce resource consumption, restore biodiversity and traditional ways of life, and undermine extractive economies, including capitalism, that erode the ecological basis of our collective well-being.</i>	<i>Create regenerative economies that center systemic, feminist alternatives: A just transition must address inequalities in power and wealth ... This means transforming an extractive, unjust status quo into new, socially just and environmentally sustainable economies that respect and balance nature's regenerative capacity. We must shift from the privatisation and commodification of nature to sustainable, equitable production and resource use. This includes understanding that GDP is an insufficient and detrimental economic indicator and that alternatives are required that measure quality of life and well-being rather than production.</i>

Notes / anything missing?

- What ideas does the group agree with?
- What ideas does the group have problems with?
- Are there other principles or ideas that are missing?
- What principles are you going to adopt for your just transition?

Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
ECONOMY: REDISTRIBUTION			<p><i>The rich must pay their ecological debt: The wealthy in our societies have consumed resources excessively, negatively impacted on ecosystems, and have huge carbon footprints. They owe us all an ecological debt and have to carry the financial burden of the deep just transition [through taxes and surcharges on luxuries]. Workers need to leverage pension and provident funds ... to support the creation of a national cooperative bank to assist workplaces, communities and households with ... the realisation of deep just transition plans. Public finance also needs to be harnessed ...</i></p>	<p><i>A just transition equitably redistributes resources and power: We must work to build new systems that are good for all people, and not just a few. ... Just transition fights to reclaim capital and resources for the regeneration of geographies and sectors of the economy where these inequities are most pervasive.</i></p>	
ECONOMY: OWNERSHIP		<p>We need investment in technology, and technology transfers to developing countries must not be fettered by intellectual property rights.</p>	<p><i>Socialised ownership: In workplaces and communities, people's power must express itself through democratic control and ownership, including through democratic public utilities, cooperatives, commoning, communal ownership and participatory planning [and] budgeting ... to ensure collective management of the life-enabling commons and systems.</i></p>		

Notes / anything missing?

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Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
ECONOMY: MITIGATION		<i>We need a carbon budget ... [i.e. To keep global warming to livable levels, we need to work within the bounds of the carbon budget, globally as determined by science, and per country as allocated fairly between countries.]</i>			
MARKET MECHANISMS / FALSE SOLUTIONS		<i>We reject market mechanisms to reduce carbon emissions [that make] the atmosphere into a commodity for sale in the same way that other natural resources have already become commodities used to generate profit. [These include] • the Clean Development Mechanism (CDM) • carbon trading. Using market mechanisms also means that the rich and powerful dictate the terms on which the last “free space” (the atmosphere) is carved up and allocated unfairly. We need regulation, coupled with sanctions against those who break them.</i>			<i>Reject false and harmful responses to climate change that fail to address root causes: We must reject false ‘solutions’ that allow drivers of the climate crisis to persist, that perpetuate oppressions, and that greenwash their harms. These include carbon trading ...; biofuels [and bioenergy] ...; dangerous nuclear power plants; increased natural gas extraction justified by carbon capture and storage and other techno “fixes”; mega-dams that cause irreversible damage to biodiversity, food sovereignty and livelihoods; and geo-engineering.</i>

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Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
WORK	<p>(b)(Decent Work Agenda) Policies must respect, promote and realise fundamental principles and rights at work.</p> <p>(e) ... policies need to provide a just transition framework to promote the creation of more decent jobs, including: anticipating impacts on employment; adequate and sustainable social protection for job losses and displacement; skills development; and social dialogue, including ... the right to organise and bargain collectively.</p>	<p><i>A just transition to a low-carbon and climate resilient economy is required [which] addresses both the unemployment crisis and the ecological crisis. ... [W]e have to campaign for protection and support for workers whose jobs or livelihoods might be threatened by the transition. ... We also have to ensure that the development of new green industries does not become an excuse for lowering wages and social benefits.</i></p>	<p><i>Enjoy life through working less: In a heating world, working hours must be reduced, at least to a four-day week. Decent, zero-carbon climate jobs must be guaranteed and supported by collective, values-based and eco-centric approaches to production, consumption, financing and ways of living through the solidarity economy. Such an economy is based on needs and democratises economic power. [W]ith a universal basic income grant ... all workers can be protected in the transition and society more generally will have a cushion.</i></p>	<p><i>A just transition creates meaningful work: A just transition centres on the development of human potential, creating opportunities for people to learn, grow, and develop to their full capacities and interests. We are all born leaders, and a regenerative economy supports and nurtures that leadership. In the process, we are transforming ourselves, each other, our communities, and our society as a whole.</i></p>	<p><i>Create regenerative economies that center systemic, feminist alternatives: ... [W]omen around the world have long disproportionately performed labour like housework, raising children, and elder work. This work is almost always unpaid, undervalued, and invisibilised in economic and social policies at all levels. Our society is constructed upon and dependent on care work, and it is valuable, low-carbon, community-based work that should be revalued and centered in our new economy.</i></p>
HOW WE LIVE			<p><i>Eco-centric living: To live simply, slowly and consciously, in an eco-centric way, which recognises the sanctity of all life forms, our inter-connections and enables an ethics of respect and care.</i></p>	<p><i>A just transition moves us toward buen vivir: to live well without living better at the expense of others. ... We must have just relationships with each other and with the natural world, of which we are a part. The rights of peoples, communities and nature must supersede the rights of the individual.</i></p>	

Notes / anything missing?

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Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
WATER		<i>All [people] have the right to clean water.</i>	<i>Democratise the water commons: Water is controlled by a few while many are in desperate need. ... As a public good, water needs to be conserved by all and protected from pollution. ... [W]ater use has to be democratically planned and effectively regulated while affirming citizens' rights to this scarce and precious resource. Water and sanitation infrastructure must be upgraded, managed and monitored to ensure efficient use.</i>		
FOOD		<i>Food insecurity must be urgently addressed.</i>	<i>Feed ourselves through food sovereignty ... The right to food must give food producers, small scale subsistence fishers, informal traders and consumers the power over their own food commons systems to ensure that culturally appropriate and nutritious food is available to all ...</i>		
ENERGY		<i>All [people] have the right to clean, safe and affordable energy.</i>	<i>Socially-owned and community-based renewable energy via a rapid phase-out of fossil fuels ... Efficient use of energy and technology will be crucial ... Divestment from fossil fuels, an end to fossil fuel subsidies and extraction (fracking, coal mines, offshore extraction) are imperative.</i>		<i>We must demand a 100% transition to renewable energy that is justly sourced and divest from the mining, fossil fuel, and agribusiness corporations responsible for fuelling climate change.</i>
MOBILITY		<i>We need a massive ramping up of public transport ...</i>	<i>Eco-mobility and clean energy public transport systems</i>		

Notes / anything missing?

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- What ideas does the group have problems with?
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- What principles are you going to adopt for your just transition?

Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
HEALTH / REPRODUCTIVE JUSTICE		<i>The impacts of climate change on health must be understood and dealt with in the context of the demand for universal access to health.</i>	<i>Emergency, holistic and preventative healthcare: We need workable, accessible and responsive public healthcare systems to meet people's needs and address the health challenges that come with climate heating.</i>		<i>Advance reproductive justice: Our fights for climate justice and for bodily autonomy are linked. ... We reject false population growth alarmism and arguments that blame climate change on people's, especially women's, reproductive capacities. ... [A] sustainable future requires bodily autonomy and sexual and reproductive rights in all circumstances.</i>
CULTURE / TRADITIONS / LAND				<i>A just transition retains culture and tradition: Just transition must create inclusionary spaces for all traditions and cultures, recognizing them as integral to a healthy and vibrant economy. It should also make reparations for land that has been stolen and/or destroyed by capitalism, colonialism, patriarchy, genocide, slavery.</i>	<i>Center Indigenous Peoples' rights and leadership: Indigenous sovereignty and solutions are paramount. This includes binding legal recognition of Indigenous land rights, real enforcement of the vital framework of Free, Prior and Informed Consent, and recognition of the Rights of Nature.</i>

Notes / anything missing?

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Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
CLIMATE JUSTICE			<p><i>Climate justice: Those least responsible must not be harmed or carry the cost of climate impacts.</i></p> <p>[T]he needs of workers, the poor, the landless, people with disabilities, grassroots women, children and vulnerable communities have to be at the centre of the deep just transition. The benefits of socio-ecological transformation must be shared equally.</p>		
SOCIAL JUSTICE	<p>(c) Policies and programmes need to take into account the strong gender dimension of many environmental challenges and opportunities. Specific gender policies should be considered in order to promote equitable outcomes.</p>	<p>New environmentally-friendly jobs provide an opportunity to redress many of the gender imbalances in employment and skills. ... Gender equality must be a guiding principle in the [running] of the Green Climate Fund.</p>	<p><i>Social justice: Climate justice is social justice. Confronting all forms of discrimination and oppression as it relates to race, class, gender, sex and age, to secure climate and social justice.</i></p>	<p><i>A just transition equitably redistributes resources and power: ... [It] must actively work against and transform current and historic social inequities based on race, class, gender, immigrant status and other forms of oppression.</i></p>	<p><i>Require intersectional gender analysis across all actions: A Green New Deal must be part of a just transition that addresses how people are impacted differently based on systemic exclusion and exploitation ... A just transition requires that women are actively brought in and benefit from green jobs and social policies, including pay equity, paid family leave and free child care. A just transition must also redress gender-based violence in industries ...</i></p> <p><i>Confront institutional patriarchy and racism: (that) shows up throughout our communities, movements, and policymaking spaces ... Unless we tackle these systems head-on, they will undermine climate solutions.</i></p>

Notes / anything missing?

- What ideas does the group agree with?
- What ideas does the group have problems with?
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- What principles are you going to adopt for your just transition?

Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
SOLIDARITY: COUNTRIES AND REGIONS	(f) There is no “one size fits all” . Policies and programmes need to be designed in line with the specific conditions of countries, including their stage of development, economic sectors and types and sizes of enterprises.	African solidarity is imperative. [A] 2°C global rise in temperature will mean a 3°C average rise for Africa [and with serious food and water impacts]. ... Africa is also more vulnerable because it has fewer resources to deal with the results of climate change. As a continent we lag behind in technology, skills and financial resources. ... We also need continental solidarity to resist a new neo-colonial land grab that is taking place in Africa.	International solidarity: Everyone's struggle is a shared struggle to sustain life. In the context of worsening climate shocks, international solidarity is central to the deep just transition as it serves to unite all who are struggling for emancipation and for a post carbon world.	A just transition embodies local, regional, national and international solidarity : A just transition must be liberatory and transformative. The impacts of the extractive economy knows no borders. We recognise the interconnectedness of our communities as well as our issues. Our solutions call for local, regional, national and global solidarity that confronts imperialism and militarism .	Recognize that there is no such thing as domestic climate policy: ... We must support migrants and refugees impacted by climate change, who are fleeing the very crisis the US has created, while funding adaptation efforts so communities do not have to leave.
SOLIDARITY: GENERATIONS			Intergenerational justice: Care for our planetary commons and ecosystems is crucial for intergenerational justice; to secure a future for our children, youth and those not yet born.		Respect the leadership of young people as they fight for future generations: ... We (...) need to leave the planet better than we found it, learn from long-held traditions of resistance, and embrace the vital work led by youth to confront climate change. Justice and our survival demand that we work together across generations to make major, far-reaching changes quickly.
SOLIDARITY: WITH NATURE			Rights of nature and natural climate solutions: ... If we are to survive, all living creatures need to be respected. ... The rights of nature approach recognises the intrinsic value of all non-human life forms. Moreover, nature has its own solutions to climate change from which we can learn.		

Notes / anything missing?

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Worksheets

	ILO JUST TRANSITION GUIDELINES	COSATU POLICY FRAMEWORK	CLIMATE JUSTICE CHARTER	CLIMATE JUSTICE ALLIANCE	FEMINIST GREEN NEW DEAL PRINCIPLES
GEOPOLITICS / IMPERIALISM	(g) In implementing sustainable development strategies, it is important to foster international cooperation among countries. In this context, we recall the UN Conference on Sustainable Development (Rio+20), including section VI on means of implementation [includes finance].	An ambitious legally binding international agreement designed to limit temperature increases to a maximum of 1.5 °C is essential as an outcome of the UNFCCC process. Developed countries must pay for their climate debt and the Green Climate Fund must be accountable.	Decoloniality: Colonial, neo-colonial and imperial domination are driving us towards extinction. This is based on the worship of extractivism, technology, finance, violence and markets. We will actively delink from this system as we affirm an emancipatory relationship between humans and with non-human nature rooted in our history, culture, knowledge and the wider struggle of the oppressed on planet earth.		<i>Recognize that there is no such thing as domestic climate policy:</i> ... We can only avert climate catastrophe if the US works with the rest of the world to mitigate climate change and advance a feminist foreign policy ... This will require ... a recognition that the US has been the world's largest historic carbon polluter ... The US must address this debt to the Global South ... ending US extractivist interventions globally. ... We must confront a US-led military-industrial complex that defends extractive industries, pollutes the environment, worsens climate change, and undermines peace and human rights.
PARTICIPATORY DEMOCRACY	(a) Strong social consensus on the goal and pathways to sustainability is fundamental. Social dialogue has to be an integral part of the institutional framework for policymaking and implementation at all levels. Adequate, informed and ongoing consultation should take place with all relevant stakeholders .	The government's position in the UNFCCC processes [and in domestic policy and plans] must properly represent the interests of the people.	<i>Participatory democracy:</i> All climate and deep just transition policies must be informed by the voices, consent and needs of all people, especially those facing harm .	<i>A just transition upholds self-determination:</i> All peoples have the right to participate in decisions that impact their lives. This requires democratic governance ... Communities must have the power to shape their economies , as producers, as consumers, and in our relationships with each other. ... self-determination is one of our greatest tools to realise the world we need. The people most affected ... have the resilience and expertise to be in the leadership of crafting solutions.	<i>Ensure democratically controlled, community-led solutions:</i> Through the leadership of women's groups and local movements in creating local and global climate policy, the outcomes will be more democratic, stronger, and longer-lasting. ... prioritise community self-determination regarding any policy or development project that impacts their land and livelihoods, affirm the necessity of Free, Prior, and Informed Consent. Solutions offered ... must be community owned and led ... It must also draw from, uplift, and support existing women and community-led solutions to the climate crisis ...

Notes / anything missing?

- What ideas does the group agree with?
- What ideas does the group have problems with?
- Are there other principles or ideas that are missing?
- What principles are you going to adopt for your just transition?

Session 1.3

Reflection

Reflection on what we have covered

- Do you have a better understanding of what a just transition means?
- What links do you see between your organisation's programmes and the campaign for a just transition?
- What did you learn about ways to make your climate projects and campaigns "gender just"?
- Name two principles for a just transition that you plan to take into your organisation's work.

➦ On [the course site](#) you will find relevant studies, videos and sites for further exploration of the topics in this session. You'll also find all references.

FAST FACTS

Leave no-one behind

The 2030 Agenda plans to achieve the **Sustainable Development Goals** to deliver sustainable development to all. Countries pledged to “leave no-one behind” and to “reach the furthest behind first.” This means reaching the poorest of poor and ending inequalities and discriminations that keep people and communities back, for example in poverty or without access to water, housing, education and social protection.

5 intersecting factors to consider^[1]

Five factors are proposed to understand who is being left behind and why – see the circles in the diagram below.

The factors can be used to *examine* the disadvantages people face; *empower* those who are at risk or are being left behind; and to *enact* inclusive and progressive policies.

SOCIO-ECONOMIC STATUS

Consider multi-dimensional poverty and inequalities of women, men and children. Consider livelihoods including informal and vulnerable employment.

GEOGRAPHY

Consider where people live, mobility and internet access and their isolation, risk or exclusion based on location, environmental degradation, transport and technology.

DISCRIMINATION

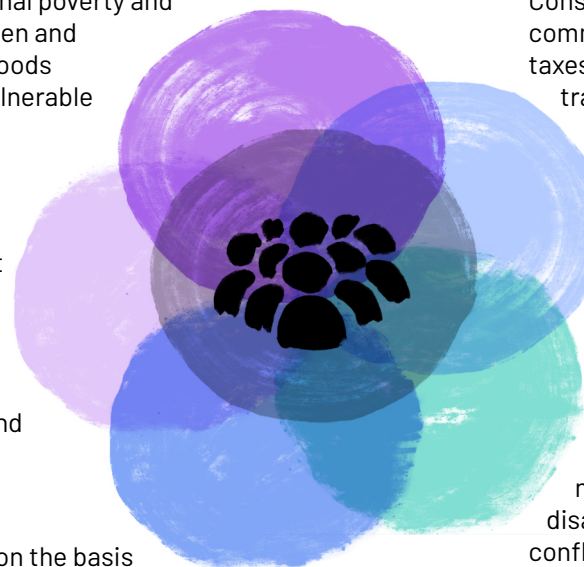
Consider discrimination on the basis of assumed or ascribed status or identity, including gender, age, disability and other social groups.

GOVERNANCE

Consider the impact on local communities of laws, policies, taxes, budgets, formal, traditional or informal practices of governance. Consider communities' ability to participate in government and decision-making, and civic spaces.

SHOCKS & FRAGILITY

Consider places or groups that endure more frequent or severe setbacks due to natural or environmental disasters, violence, crime, conflict, economic or other shocks.

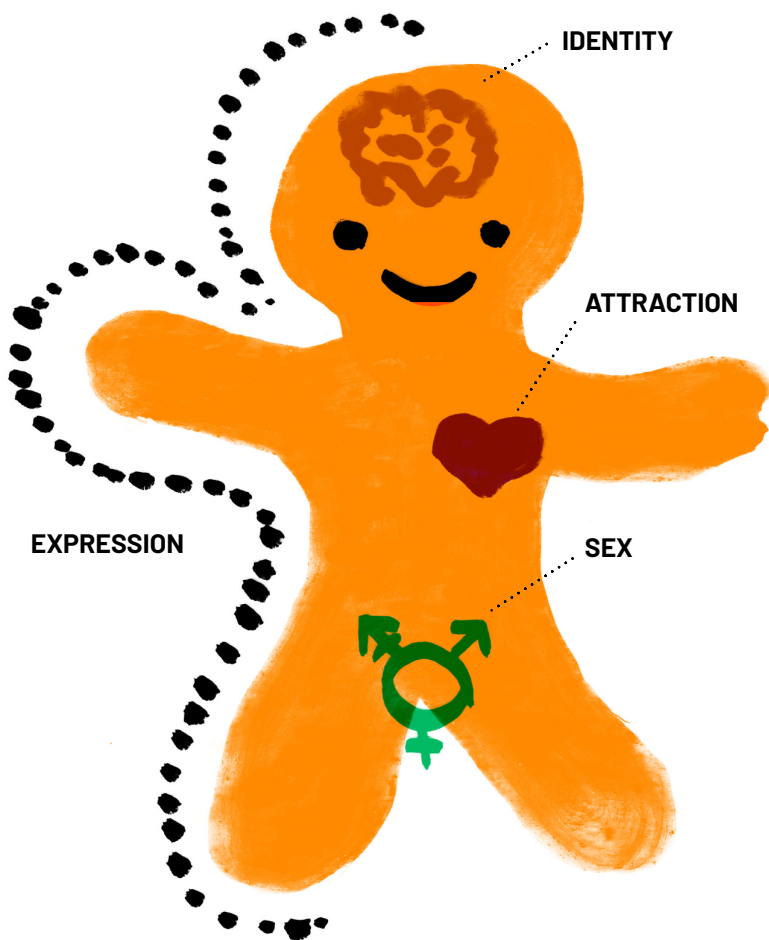


Experience from many organisations' programmes around the world has demonstrated that putting marginalised people such as women and indigenous communities at the heart of climate policy and initiatives has long-lasting positive impacts on communities' capacity to prepare for and absorb climate shocks, and brings about social justice. On the other hand, failing to include gender analysis in policies and programmes can reinforce inequalities, for example by perpetuating stereotypes.^[2] Having the most disadvantaged people's leadership, viewpoints, issues and needs at the centre of initiatives will be sure to leave no-one behind.

FAST FACTS

What is gender?

The Genderbread Person



means none of what is on the right of the spectrum



GENDER IDENTITY

Gender identity is about how you, in your head, think about yourself. For example, you could identify as genderqueer.



→ Woman-ness



→ Man-ness



GENDER EXPRESSION

Gender expression is how you demonstrate gender through the ways you act, behave, dress and interact. For example, you could express yourself as androgynous.



→ Femininity



→ Masculinity



ANATOMICAL SEX

Anatomical sex refers to your physical organs, hormones and chromosomes.



→ Female-ness



→ Male-ness

SEX ASSIGNED AT BIRTH

☐ Female ☐ Intersex ☐ Male

Attraction is who you are physically and/or emotionally attracted to. For example, you may experience bisexual attraction.



SEXUALLY ATTRACTED TO...



→ Women and/or Feminine People



→ Men and/or Masculine People



ROMANTICALLY ATTRACTED TO...



→ Women and/or Feminine People



→ Men and/or Masculine People

Source: www.itspronouncedmetrosexual.com^[3]

FAST FACTS

Data on the position of women and men

The United Nations' World's Women 2020 report assesses progress towards gender equality as at 2020, based on extensive data collection around the world.^[4] Here are some of the global average numbers:

Education

We have advanced to where girls and boys are equally likely to be enrolled in primary and secondary education. In education, 65% of science, technology, engineering and mathematics students are men.

Work

- 14% of young men and 31% of young women are not in education, training or employment.
- 74% of men of working age participate in the labour market, but only 47% of women.

- Women's availability to join the labour force is limited by the unequal distribution of family responsibilities, and of **unpaid domestic and care work in the household**. Women spend about 2.5 times as much time on unpaid domestic and care work as men do – on average per day women do 4.2 hours of such work compared to 1.7 hours done by men.
- Overall, men earn 12% more than women. This is because women are more in part-time, informal or self-employed jobs, or in lower-paid jobs than men, or are paid less for the same work.
- Women are more likely than men to:
 - **work part-time** in 95% of countries
 - have **informal jobs** in 56% of countries
 - 18% of women versus 7% of men are engaged as “**contributing family workers**”. These are people that work for a business run by a relative living in the same household.

These kinds of jobs offer more flexible working hours. But they are lower paid, have less job security, offer fewer training and promotion opportunities, and provide less social protection such as maternity benefits, pension, medical aid, unemployment funds, disability funds.

- Based on stereotypes about what education and work men and women are suited for, women and men are employed in different occupations (**horizontal segregation**) and in different positions within the same occupation or occupational group (**vertical segregation**), for example:
 - Women make up... 20% of plant and machine operators and assemblers, 45% of technicians, 49% of professionals (but only 20% of Information and communications technology professionals and 28% of science and engineering professionals), and 28% of managers.^[5]
 - Men make up... 12% of personal care workers, 21% of paid domestic workers, 31% of health professionals, and 50% of service and sales workers.^[6]

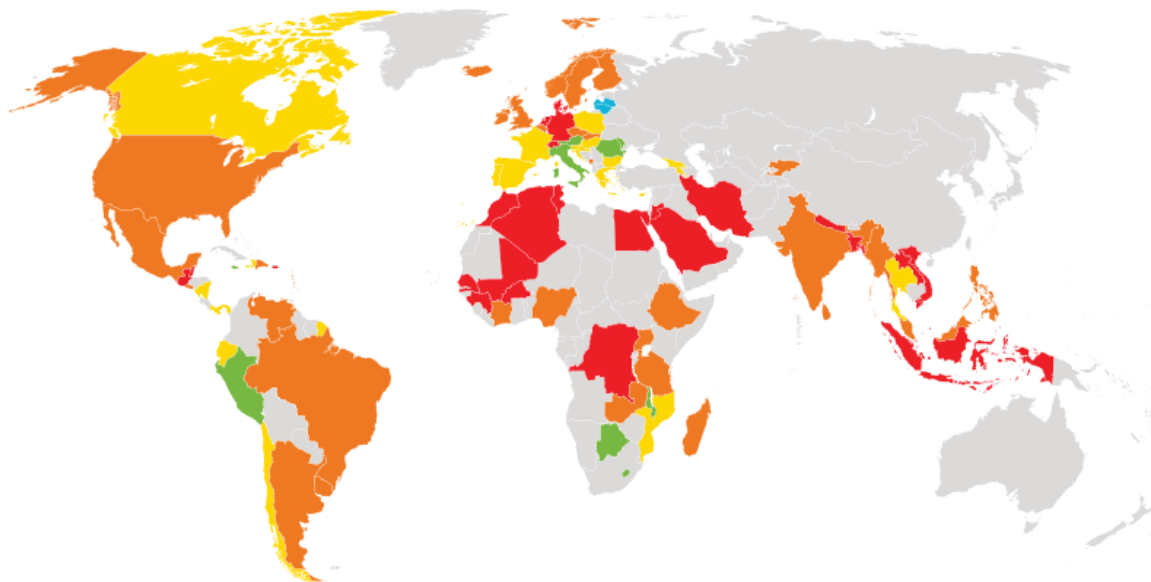
Ownership and access to services

- 72% of men have access to formal financial services such as banks and loans, but only 65% of women do. As a result, women are less likely to be able to carry on businesses, fulfil their potential as entrepreneurs, or buy property or other assets.

- Fewer women than men have ownership, secure tenure rights or control over land. 85% of agricultural landholders are men.
- 58% of men use the internet while 48% of women do.

The percentage of landholders who are women, across 104 countries ^[7]

■ 0-9% ■ 10-19% ■ 20-29% ■ 30-39% ■ >40%



Exposure to violence

- 50% of women say they can say no to sex and make their own decisions about contraception.
- 18% of women aged 15–49 reported that their intimate partner was violent to them in the previous 12 months.
- Men are 4 times more likely to be murdered than women (only 20% of the victims of homicide are women).
- In 2017, 58% of murdered women were killed by an intimate partner or family member.
- Looking only at murders committed by a victim's intimate partner, 80% of victims are women.

Check the situation when it comes to gender equality in your country: At <https://data.unwomen.org/> countries, you can find a factsheet per country (in English but with good visuals) of the position of women and men in the countries where UN Women was able to collect data about this. They measure progress on the Sustainable Development Goals for women and for men, so one can see the differences.



Delegates at the National Gender-based Violence and Femicide Summit in South Africa in 2018. The Summit brought together over a thousand delegates from civil society organisations, traditional leaders, academics, faith based organisations, labour, business, development agencies, media and advertising sector. Photo: GCIS



Scores of women embarked on a nationwide march against gender-based violence. Photo: GCIS

Issues of gender justice in the climate transition

Societies and cultures shape different positions for women and men in society and the economy. Women and men may have different...

- roles in the society and economy
- jobs and pay
- responsibilities and decision-making authorities in the household, community and society
- access to, use of and control over resources
- consumption patterns
- lifestyles and activities.

These different positions mean women and men might be affected differently by climate change and by the climate transition – depending also upon other factors. Richer people have more resources to deal with changes and shocks.

When thinking about gender and the climate transition, be careful not to reinforce or perpetuate stereotypes. Reflect on what exists in terms of the position of men and women, not a prescription of women's and men's innate potential. It is true that most childcare and household work is done by women; it is not true that women are more caring by nature than men. It is true that more men than women are in formal jobs; it is not true that men are cleverer or more worldly-wise by nature. There will always be exceptions at an individual level, and some differences between cultures, classes, and economies. Overall women earn less than men; however many women of the middle class likely earn more than most men of the working class. A 2016 publication of the Global Gender and Climate Alliance 'Gender and Climate Change: A closer look at existing evidence' found that the evidence overturns some broad statements, such as "Men and boys will not be as affected by climate change as much as women and girls are" and "Women are more likely to die during storms and floods because of an inability to swim" (it turns out that swimming skills don't help you survive during major storms and floods).^[9]

Ecofeminism

Eco-feminist-socialism seeks to reclaim and reinvigorate feminism, environmentalism and socialism to understand the crossroads we are at and point the way to a different kind of future which is just and not exploitative.^[10] The organisation Women Engage for a Common Future is driving a [#ecofeministscorecard](https://www.wecf.org/ecofeministscorecard) campaign starting in Europe, see www.wecf.org/ecofeministscorecard.



A mural about women's roles in society on the Women's Center in Leon, Nicaragua.
Photo: Sven Hansen

Climate changes and their potential effects on women and men

A United Nations/ARROW publication, Training Manual on Gender and Climate Change Resilience, considers how various climate change impacts might affect women and men differently based on their gendered roles.^[11] Note that the gender roles provided are just an indication, they are not fixed and may vary in different contexts.

Based on the climate changes happening or coming in your area, consider whether these ideas apply in your own context, and what other effects there may be differently on women and men.

SECTOR	CLIMATE CHANGE OR TRANSITION IMPACTS	EXAMPLES OF POSSIBLE GENDERED ROLES		GENDERED VULNERABILITY TO THE IMPACT
WATER	<ul style="list-style-type: none"> Increased water stress due to droughts, erratic rainfall and declining groundwater 	<i>Women</i>	<ul style="list-style-type: none"> Fetch and use water for drinking and use in the home Irrigate food crops 	<ul style="list-style-type: none"> Increase in time and distance travelled for safe water Diversion of scarce water to other uses means less water available for food crops
		<i>Men</i>	<ul style="list-style-type: none"> Irrigate cash crops Use water in manufacturing 	<ul style="list-style-type: none"> Increased conflicts over scarce water resources
FOOD	<ul style="list-style-type: none"> Reduced food production and increase in prices Poor conservation policies may reduce access to natural resources 	<i>Women</i>	<ul style="list-style-type: none"> Manage food and nutrition for the household Cook 	<ul style="list-style-type: none"> Increased poverty as more of the household's money goes to food** Reduced food and nutrition for girls and women, in homes where men are fed more or first Women who depend upon forests for food and wood will face more problems Increased stress to provide food and nutrition security in family
		<i>Men</i>	<ul style="list-style-type: none"> Earn money for food 	<ul style="list-style-type: none"> Increased poverty as more of the household's money goes to food** Increased stress to get more income and manage finances
FODDER FOR ANIMALS	<ul style="list-style-type: none"> Land gets allocated to other purposes than free grazing or growing fodder e.g. to biofuels 	<i>Women</i>	<ul style="list-style-type: none"> Collect fodder Manage grazing animals 	<ul style="list-style-type: none"> More time and effort spent collecting fodder or getting to free grazing
		<i>Men</i>	<ul style="list-style-type: none"> Buy fodder Manage grazing animals 	<ul style="list-style-type: none"> Increase in fodder costs More time and effort spent getting to free grazing
ENERGY	<ul style="list-style-type: none"> Poor conservation policies may reduce access to natural resources Low-emission energy policies change the technologies 	<i>Women</i>	<ul style="list-style-type: none"> Use electricity, paraffin, gas or wood for cooking and heating water 	<ul style="list-style-type: none"> More time and effort spent collecting wood for fuel
		<i>Men</i>	<ul style="list-style-type: none"> Use or own machines and vehicles that use electricity or oil 	<ul style="list-style-type: none"> New skills are needed Have to afford to buy new machines or vehicles
HEALTH	<ul style="list-style-type: none"> Increase in water-borne diseases and diseases carried by mosquitos, ticks or flies Increase in heat waves Increase in natural disasters 	<i>Women</i>	<ul style="list-style-type: none"> Care for the sick 	<ul style="list-style-type: none"> Increased work of caring for sick Lose wages due to absence from work to care for a sick child or elderly person
		<i>Men</i>	<ul style="list-style-type: none"> Earn money for medical expenses Pay medical insurance 	<ul style="list-style-type: none"> Increase in medical expenses
CROP FARMING	<ul style="list-style-type: none"> Average crop yields go down Different crops that suit the new climate in an area have to be planted 	<i>Women</i>	<ul style="list-style-type: none"> Grow and store food crops Do agricultural labour 	<ul style="list-style-type: none"> Reduced food crop yields lead to food insecurity, especially for subsistence farming households Fewer work days reduces income
		<i>Men</i>	<ul style="list-style-type: none"> Work in cash crop production and marketing Do agricultural labour 	<ul style="list-style-type: none"> Reduced farm incomes lead men to migrate in search of other incomes

**In general, it is poorer households which spend a larger part of their income on food and energy (richer households have money to spend on other expensive things like property, cars and holidays which may cost more than what they spend on food and energy).

SECTOR	CLIMATE CHANGE OR TRANSITION IMPACTS	EXAMPLES OF POSSIBLE GENDERED ROLES		GENDERED VULNERABILITY TO THE IMPACT
LIVE-STOCK FARMING	Livestock affected by: <ul style="list-style-type: none"> • Lower water availability • Changes in feed quality and availability • High temperatures causing heat stress • Spread of diseases • Changes in demand for meat • Increase in cost of fodder and water 	<i>Women</i>	<ul style="list-style-type: none"> • Manage small livestock and poultry 	<ul style="list-style-type: none"> • More time spent on livestock management
		<i>Men</i>	<ul style="list-style-type: none"> • Manage or work in large cattle and dairy farms 	<ul style="list-style-type: none"> • Large cattle farming could become less profitable or even unviable
FISHING	<ul style="list-style-type: none"> • Availability of seafood or aquaculture is changed or reduced 	<i>Women</i>	<ul style="list-style-type: none"> • Process and market fish • Farm fish in ponds 	<ul style="list-style-type: none"> • Fish goes bad faster in hotter temperatures
		<i>Men</i>	<ul style="list-style-type: none"> • Catch fish at sea 	<ul style="list-style-type: none"> • More time spent at sea • Higher fuel costs to get to where the fish are • Reduced income or profits
HOME-BASED WORK	<ul style="list-style-type: none"> • Increase in number of hot days and heat waves • Increase in riverside or coastal flooding 	<i>Women</i>	<ul style="list-style-type: none"> • Fetch water and fuel, clean, cook, do childcare • Work from home 	<ul style="list-style-type: none"> • Floods sweep household goods away • Loss of home-based workplace and materials due to disasters
		<i>Men</i>	<ul style="list-style-type: none"> • Use power tools and handlooms 	<ul style="list-style-type: none"> • Less productive in heat waves
TRANSPORT	<ul style="list-style-type: none"> • Infrastructure damaged by heat, extreme storms, floods • Low-emissions transport policies and technologies 	<i>Women</i>	<ul style="list-style-type: none"> • Use public transport to go to work, shop, take children to school or clinic 	<ul style="list-style-type: none"> • Less availability or higher cost of public transport reduces women's mobility and access to services
		<i>Men</i>	<ul style="list-style-type: none"> • Use private and public transport for work or to get there, or go on outings 	<ul style="list-style-type: none"> • Fewer jobs or new skills needed for truck drivers • Increased fuel and transport costs reduce use of own cars or motorbikes
COASTAL DISASTERS	<ul style="list-style-type: none"> • Increased saltwater intrusion • Storm surges • Flooding and damage to infrastructure 	<i>Women</i>	<ul style="list-style-type: none"> • Store household and emergency items • Collect water and cook • Care for children and elderly 	<ul style="list-style-type: none"> • Women and children more likely to be injured or die • Homes are displaced • Workload to fetch water and fuel, clean, cook, do childcare becomes harder • Sexual and gender-based violence increases after disasters and in shelters
		<i>Men</i>	<ul style="list-style-type: none"> • Risk-taking behaviour • Try to save lives and property • Get information updates • Responsible for insurance and recovery 	<ul style="list-style-type: none"> • Risks at work for fishers • Loss of life • Increased migration • Increase in stress • Alcoholism and suicide rates can increase

Source: [UN Women](#)

FAST FACTS

Vulnerabilities and capacities in relation to disasters

People's existing capacities and vulnerabilities determine the impact that a hazard has on them, and the way they respond to a crisis. To understand their risk one needs to look at how much they are exposed to climate changes and the knock-on impacts, how sensitive they are to being impacted and what abilities they have in responding. (See factors to consider under "Leave no-one behind" at the beginning of this Fast facts-section.)

Considering that in general women bear a triple workload (livelihood, housework, childcare), manage with less money, and survive domestic violence and sexual harassment and assault, one might consider them very resilient.

One paper looked into differences in terms of how men and women are vulnerable to disasters, and the capacities they have in responding to a disaster. ^[12]

This is what the paper suggests:

Gender differences in vulnerability and adapting to disasters

	WOMEN	MEN
Gendered disparities that increase risks in disasters	<ul style="list-style-type: none">• Lack of access to education, information and early warning• Limited access to political power and representations• Higher levels of poverty• Nutritional condition determines the capacity to deal with disasters: women eat after or less than men in some contexts• Extensive responsibilities of caring for others• Domestic violence• Typical women's occupations and tasks are underpaid or become harder with droughts or floods:<ul style="list-style-type: none">• smallholder agriculture• informal economy• water collection• caring for the sick exposes women to diseases	<ul style="list-style-type: none">• Being away at work when disasters happen with less of a support system and trying to get home• Norms of masculinity: Men may believe that as the "stronger sex" they need not take precautions; or society expects men to take risky "heroic" rescue action• Roles in the family and home: men may take risks acting as protectors or taking on physical tasks such as clearing demolished homes
Gendered experiences that can increase capacities for managing disasters	<ul style="list-style-type: none">• Social networking• Experience of caring activities• Extensive knowledge of communities• Management of natural and environmental resources• High levels of risk awareness	<ul style="list-style-type: none">• Knowing how to swim, climb trees and be physical is taught more to boys• Boys are given preference during rescue efforts• Professional and work contacts• Experience of technical activities• Limited childcare responsibilities

Note that the same aspect can be both an enabler and a barrier within one gender (e.g. women's being constrained to the home and local environment means both that they don't have networks in the wider world and the experiences that broaden one's horizons, and that they have extensive knowledge of their own community and strong social networks).

The “double disaster” for women

The paper above says “In the longer term rehabilitation and recovery phases after disasters, there are also gendered differences. Women and girls are particularly vulnerable in **post-disaster situations**, because they lack land and other assets that could help them cope. Therefore, they are more likely to face food shortages, sexual harassment, unwanted pregnancies, trafficking and vulnerability to diseases and could be forced to drop out of school or marry earlier. If gender is not taken into account, there is also a danger that post-disaster recovery grants will favour men over women, thus reinforcing gender inequalities.”

🕒 **Reflect:** Consider whether these ideas apply in your own context, and what other gendered risks and capacities there may be.

FAST FACTS

Issues of livelihoods, jobs and decent work in the transition

What is a livelihood?

A livelihood is how you make your income and sustain yourself, and a formal job for an employer is one form of livelihood. Many households make a livelihood from a range of sources, for example, a family member's job, casual work when someone can get it, social grants, **informal economy** and **micro-enterprises** (which may include activities currently considered illegal), and perhaps **subsistence agriculture**.

Reproductive labour

In talk of work, we seldom think about 'reproductive labour' – unpaid work largely done by women such as childcare, cooking, cleaning, washing, care for the elderly and sick, which keeps households running

and enables people to do the other work. An International Labour Organisation report, *The Future of Work We Want: A Global Dialogue* says the concept of work needs to be broadened to include unpaid work (especially care work) so that the notion of work is not just limited to **wage labour**.^[13] In the 1970s, some feminists in the developed world campaigned for housewives to be paid for their work.^[14] A group of organisations is campaigning to rebuild the social organisation of care work through a 5Rs programme: **R**ecognise the social and economic value of care work (paid or not), **R**eward and remunerate care work, **R**educe the burden of unpaid care work on women, **R**edistribute care work within households, **R**eclaim the public nature of care services. See peopleoverprof.it/resources/campaigns/rebuilding-the-social-organization-of-care for the manifesto, videos and podcasts, and organisations involved, which includes the global union federation Public Services International.

How work is changing due to the climate crisis and the climate transition

Physical climate changes, and low-carbon and climate-resilient changes in economic activity, are affecting how people earn a living. Increasing heat

can affect workers' productivity and working conditions, machinery and production processes. The kinds of skills and jobs we need in a low-carbon and climate-resilient economy are different from what we have now. Livelihoods which rely on natural resources may be challenged as ecosystems change or collapse. The question of what is to happen to workers in fossil fuel sectors as those are wound down was the trigger for talk of the need for a “**just transition**”.

Two ILO papers from 2018 argue that the future of work and social justice will be defined by two major trends related to the natural environment – current and future environmental degradation, and the push towards environmental sustainability. The papers are ‘The future of work in a changing natural environment: Climate change, degradation and sustainability’^[15] and ‘World Employment and Social Outlook 2018: Greening with Jobs.’^[16] Key findings from these papers and jobs numbers are given below.

CLIMATE JOBS CAMPAIGNS

Climate Jobs Campaigns bring together unions, climate justice groups and other civil society organisations to propose massive public investment

in the creation of “climate jobs” and advocate for a people’s plan for a just transition. There are national climate jobs campaigns in Norway, UK, Scotland, France, Portugal, South Africa, Canada and USA. Find them at globalclimatejobs.org.

The campaigns call for jobs which have a direct impact on cutting greenhouse gas emissions or in adapting to climate change, including providing and securing vital services, and are:

- new jobs
- in the public sector or publicly funded
- dignified jobs, with fair wages and conditions, respecting the rules of environmental protection, hygiene, health and safety at work

and which come with a commitment to first reskill and employ workers in sectors that are shrinking due to the transition. But addressing equal opportunities for women and men to get these jobs is not part of the concept of “climate jobs” in these campaigns’ materials. They also do not suggest prioritising other groups that do not have equal access to decent jobs due to structural discrimination, for example due to ethnicity.

DECENT WORK

Because green livelihoods and jobs are emerging, new areas of work, they can be created as decent jobs from the start. Trade unions need to ensure that green jobs accord with the ILO (International Labour Organisation) Decent Work Agenda.^[17] This includes equality of opportunity and treatment for all women and men.

What is “decent work”?



DECENT WORK IS WORK THAT...

- ➔ Is meaningful and productive
- ➔ Pays a living wage
- ➔ Provides benefits and social protections
- ➔ Is protected by strong labour laws that guarantee workers' rights, including freedom of association (the right to join and be represented by a union)



WOMEN'S PARTICIPATION IN GREEN LIVELIHOODS AND JOBS^[18]

FACTORS THAT KEEP WOMEN OUT OF THE WORKFORCE AND LIMIT THEM:

- Unequal access to money and resources.
- Rights of inheritance and ownership differ.
- Discrimination leads to gender gaps in education, health care and economic participation.
- Women bear most responsibility for childcare and households, causing them to suffer from time poverty, intermittent employment and lack of mobility.
- Women work in lower-paying sectors and positions.
- During economic downturns: in developing countries more women are laid off; in developed countries more men lose jobs.
- Idea of the male breadwinner is still a stereotype.

TO FACILITATE WOMEN'S ENTRY INTO AND EFFECTIVE PARTICIPATION IN GREEN JOBS:

- Address the factors that are barriers for women (left column)
- Address the underlying causes of discrimination through changes in legal structures governing property rights, inheritance and family codes.
- Provide for affordable childcare, paid parental leave and flexible work arrangements. Working hours which are supportive of family life, health benefits and maternity leave, and supervised health and safety conditions should be fundamental requirements of green jobs.
- Recruitment and training can particularly help more women into career paths that will allow them to become economically secure and support themselves and their families.

In the climate transition, unions and organisations must act to increase the number of women:

- **Employed** – through anti-discrimination laws and family-friendly workplace policies.
- **Recruited** – for new jobs, through quotas and targeted schemes.
- **Trained** – in green jobs skills, through targeted apprenticeship and training initiatives.
- **Paid equitably** – by reducing gender-based job segmentation and wage gaps. Ensure equal pay for equal work from the outset when jobs are created.
- **Organised** – through increasing women union members in potential green sectors.

A CHANGING LABOUR MARKET: THE RISE OF PRECARIOUS JOBS

The climate-caused changes to livelihoods and work occur at the same time as other shifts in the world of work. The International Labour Organisation set up a Global Commission on the Future of Work in 2017. They have produced useful research papers.^[19]

Globally, we could say we are in a period when we are shifting in fits and starts from the **proletariat** (shop floor factory workers) of industrialisation to the **precariat** (casual, temporary or self-employed workers) of the 21st century labour market. Some snippets from a newspaper article on the ILO Commission's work describe this:

The 'standard' employment relationship, which is a full-time ... job for the male breadwinner, with a sufficient wage to feed a family, with rights and social protections [like paid leave, pensions and medical aid], is the most advanced form of wage labour developed in the latter half of the 20th century. But such standard employment was only dominant in a few parts of the world: Europe, North America, Japan and Australia. ... In developing and emerging countries, work [has long been] characterised by vulnerable and informal employment, long hours of paid and unpaid work and rudimentary social protection. ...

Today, we are witnessing ... dependent or independent self-employment and forms of casual labour [hastened by the emergence of the digital economy]. ... The 'flexibilisation of labour' has been presented to the developing world as a way to

attract foreign investment. ... A consequence of [these shifts] is that the employer becomes 'indirect/invisible' or 'disappears'.

The erosion of traditional employment presents a challenge to the role of trade unions. It weakens their position as they lose their counterparts [the employers]. Trade unions have successfully fought for standardisation of employment in the past, and have already started to organise workers in global value chains, self-employed workers and those who work in the digital economy.

Some people like the flexibility and autonomy that working freelance or for yourself gives you, and earn enough to bridge over the times when there is no income, and to provide for their housing, healthcare and old age themselves.

But mostly the precariat experiences insecure work, low and unpredictable incomes, and loss of citizenship rights. They may have **on-demand** or **zero-hour contracts**, or get intermittent work through **labour brokers**; some do 'tasking', 'crowd work' or 'work on-demand via apps' through the internet. For some, their level of education exceeds that required for the kind of labour they can expect to obtain.^[20] Many categories of workers have always been in the precariat, for example domestic workers and seasonal farmworkers. It is extremely difficult to organise and defend workers whose workplaces are atomised and where workers are held dependent on the employer for shelter and payment in-kind such as food.

COSATU, a labour federation in South Africa, calls for labour brokers to be banned, because “they act as go-betweens in the employment relationship, taking a fee from the party who should be the employer, for doing nothing. In this way the real employer dodges employment responsibilities and the law, the labour broker gets rich through being a trader in labour, and the worker is exploited worse than ever.”^[21]

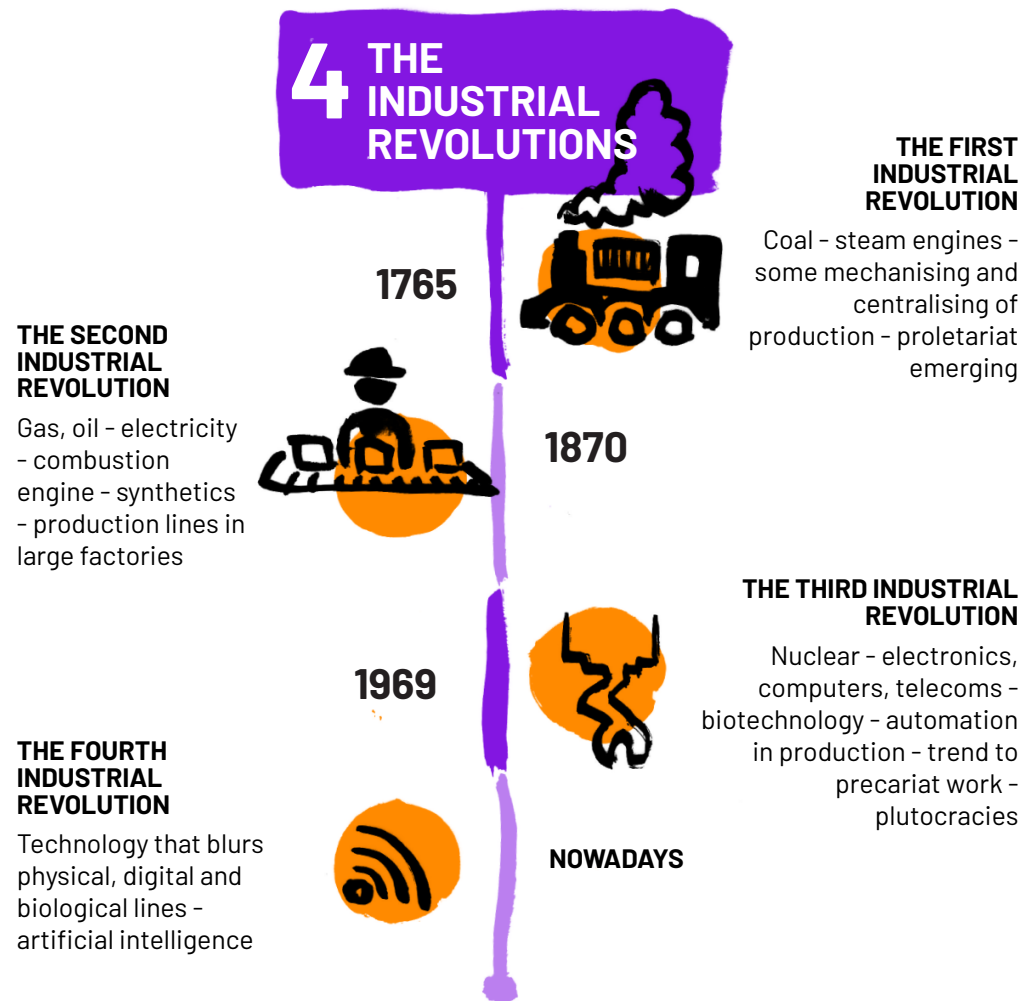
Two articles (in English) give a sense of a debate about the role of the proletariat / precariat in a just transition: ‘[The Precariat: Today's Transformative Class?](#)’ and a [response](#).

DECENT AND CLIMATE-FRIENDLY JOBS? NOT UNLESS WE FIGHT FOR IT

The impacts of the ‘4th industrial revolution’ on the human world of work and livelihoods has not taken deep root yet. From the newspaper article mentioned above: “[T]he increased use of robots will (...) increase the rate of return of capital. Profits are financialised and not reinvested to produce more.”

There are many studies which look at the numbers of jobs that can be created in climate-smart and “green” economies. But there is no guarantee that a more sustainable world will come about, and certainly not that it will serve people more equitably. Companies are designed to maximise profit by increasing sales,

finding new markets and/or reducing costs, and to reduce risks to their business model. Those aims may drive companies to sustainability, but are equally driving fossil fuel companies to extract as much as they can and fully exploit their assets before their markets collapse.



Adapted from www.sentryo.net/the-4-industrial-revolutions

Writing about the work of the ILO's Global Commission on the Future of Work, a newspaper article sketched one possible future:^[22]

For some, the most likely scenario is one in which the current inequalities are exacerbated, which merits consideration of changes in the distribution of productivity gains. ... The future of work will be marked by greater inequality in and between countries. Productivity gains will be led by capital – owners of capital will reap the benefits ... The declining labour share of income will continue and, if capital remains in the hands of a few ..., inequality will increase. Market forces, as the mechanism for distributing wealth in society, may not ensure decent living conditions. Redistribution is warranted ...”

The changing nature of production and work, incorporating new technologies and with new labour relationships, takes place within unequal economic and power dynamics. So it is up to social movements, trade unions and workers – and governments we elect or lobby – to make sure that we do transition to sustainable development, and that it provides decent work, a ‘better life for all’ (including other species) and greater wellbeing.

Key ILO findings relevant to the climate transition



The International Labour Organisation is an important actor for just transition and has developed many of the ideas around the concept. Here are some of their flagship reports at a glance.



Agricultural workers in Regueb, Tunisia.
Photo Marcel Crozet / ILO.

ENVIRONMENTAL SUSTAINABILITY AND DECENT WORK

Economic activity, and many jobs, depend on nature.

1.2 BILLION
JOBS DEPEND ON
SERVICES PROVIDED
BY THE
ENVIRONMENT



**THE EQUIVALENT TO
72 MILLION
FULL-TIME JOBS WILL
BE LOST IN 2023 DUE
TO HEAT STRESS**



Source: ILO^[23]

For example, farmers rely on soil to maintain and renew its nutrients, insects to pollinate crops, and dryland farming relies on rain. Coastal fishing relies on the biodiversity of the ocean and its fish stocks, as well as on tidal marshes, mangroves or coral reefs for storm protection. In 2014 about 1.2 billion jobs or 40% of jobs were in sectors that depend heavily on natural processes.

Jobs are vulnerable to environmental risks and hazards.

Risks can stem from **slow-onset events** (droughts, erosion, soil degradation or sea-level rise) or **rapid-onset events** (extreme weather events), and can be local or global.

Environmental risks can result from human activity (e.g. water pollution from industries) or natural hazards (e.g. water pollution following a volcanic eruption). Human activity can also increase the impact of natural hazards (for example, mangrove deforestation increases the consequences of storms on shores).

Agricultural workers will be the worst affected by global warming, because they do physical labour outside and a large number of these workers are in the areas most affected by future high temperatures. Agricultural workers will account for 66% of global hours lost due to **heat stress** in 2030.

Jobs relying on ecosystem services, in 2014 (in thousands)

Only activities considered to have a “significant and substantial” link to the environment are included.

Sector	Examples of ecosystem services supplied by nature to the sector	Africa	Americas	Asia and the Pacific	Europe	Middle East	World
<i>Most activity in the sectors below involves biodiversity and ecosystem services</i>							
Agriculture	Water, Pollination, Seed dispersal,	217 263	42 600	670 476	42 108	4 248	976 694
Forestry	Genetic resources, Stock	1 634	1 103	11 866	2 061	36	16 700
Fishing	availability	5 118	2 264	36 491	603	252	44 728
Food, drink, tobacco	Water, Food, Fibre	3 267	10 470	46 141	11 083	510	71 471
Wood and paper	Fibre, Water purification, Waste control	487	3 605	7 789	3 694	126	15 701
Renewable energy	Son, wind, waves, Biomass for biofuels	123	292	1 842	737	107	3 101
Water	Freshwater supply, recycling, purification, flow and natural hazard regulation	23	136	414	320	57	950
<i>Most activity in the sectors below involves biodiversity and ecosystem services</i>							
Textiles	Fibre, Water purification, Waste control	595	5 409	39 423	4 263	165	49 855
Chemicals	Water, Genetic resources, Biochemical diversity	247	2 254	10 938	1 388	<0.5	14 827
Environment-related tourism	Entertainment and novelty, Cultural and aesthetic value, Education, Indigenous foods, Water, Air quality	2 282	7 110	23 081	4 828	357	37 657
Total by region		231 039	75 244	848 461	71 084	5 856	1 231 684
Share of total regional employment (%)		59	17	47	16	15	40

Source: ILO

Environmental degradation enhances inequality.

This degradation refers to climate change, and other things like soil, air and water pollution, over-exploitation of natural resources, soil deterioration, and biodiversity loss. People who are marginalised are especially vulnerable to the effects of climate change and environmental degradation. Low income countries alongside women, people in poverty, migrant workers, youth, persons with disabilities, indigenous and tribal peoples and other vulnerable population groups are particularly exposed.

[See a video that sums up this ILO report here](#) (In English) (time: 2 min).

THE EMPLOYMENT IMPACT OF THE TRANSITION TO A GREEN ECONOMY



The architect Muntita Sichali works on a green homes construction project in Zambia. The project is supported by the ILO. Photo: Marcel Crozet / ILO.

Advancing towards sustainability can create employment, and need not limit progress towards achieving decent work.

In the shift to low- carbon and resource-efficient economies, there will be a redistribution of labour as environmentally damaging industries downsize or adapt and environmentally compatible industries emerge and grow. Sustainability will touch all sectors, driving the future of work across the economy.

Countries can decouple economic growth and greenhouse gas emissions.

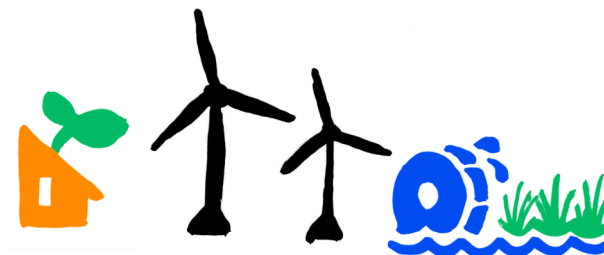
The ILO found 46 countries that had economic growth between 1995 and 2014 while at the same time reducing greenhouse gas emissions they produced. This could be done by exporting emissions; stopping carbon-intensive production within the country and instead importing carbon-intensive goods produced elsewhere. However, 23 of the countries were able to achieve this decoupled growth without doing that.^[24]

Note that this conclusion by the ILO is highly debated. Often countries do not count large parts of their emissions (for example the emissions happening in other countries as a result of citizens' consumption, and biogenic emissions from biofuels). No country has achieved absolute decoupling of economic growth and carbon emissions, so it is not proven to be possible.

A low-carbon energy sector creates jobs.

Decarbonising the energy sector could create 18 million jobs, the net result of 24 million jobs created and 6 million jobs lost.

18 MILLION
JOBS CAN BE CREATED BY ACHIEVING
SUSTAINABILITY IN THE ENERGY SECTOR



The ILO has identified other sectors where jobs will be gained or lost.

Of the 163 industries analysed, only 14 see losses of more than 10 000 jobs.

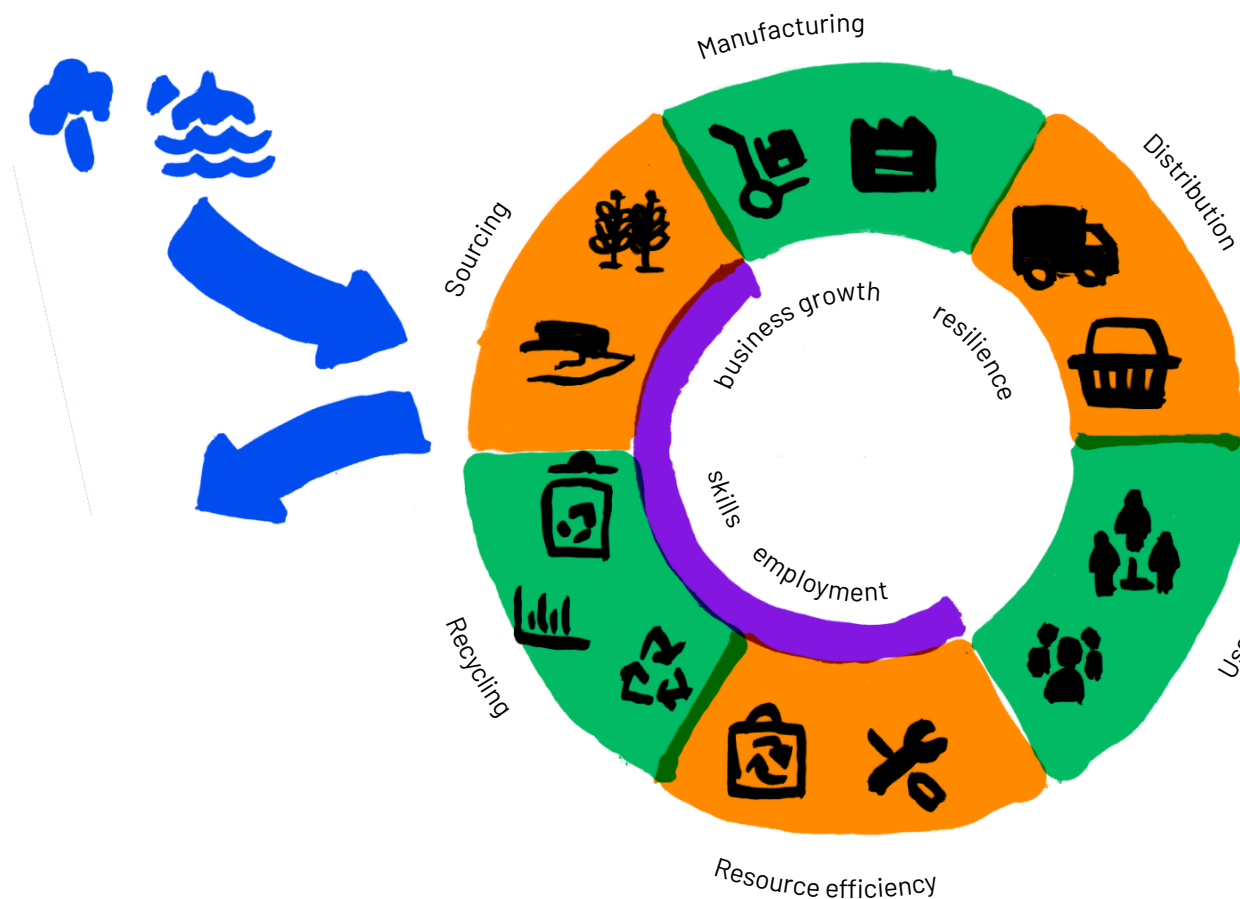
Jobs are mainly created in... renewable energy (18 million), construction (6.5 million jobs), manufacturing of electrical parts and machinery (2.5 million) and the mining of copper ores and concentrates (1.2 million), production of electricity by hydro power (0.8 million), cultivation of vegetables, fruits, nuts (0.8 million), production of electricity by solar photovoltaics (0.8 million), retail trade (except for motor vehicles and motorcycles; repair of personal and household goods.

Jobs are mainly lost in... crude oil extraction (1.4 million), petroleum refining (1.6 million), coal-fired electricity (800 000) and the mining of coal (700 000).

A resource-efficient economy implies a reallocation of labour.








The current economic model of production of goods is linear: extract—manufacture—use—discard. **Circular economy** models are based on produce ♻ service ♻ use ♻ repair ♻ reuse ♻ recycle. Goods are made to last longer; repair and rental services gain over just replacing goods; and metals, plastics, glass and pulp materials are reused or recycled so less primary resources are extracted or produced. This changes jobs in extractive, manufacturing and waste industries, and could create 6 million jobs.

6 MILLION JOBS CAN BE CREATED BY EMBRACING A CIRCULAR ECONOMY



Industries set to have the highest job growth under circular economies (absolute number of jobs)

The ILO modelled a circular economy scenario in 2030 compared to the International Energy Agency's business-as-usual scenario by 2030, and quantified what jobs would grow and which would be lost.

Sector	Jobs (millions)
 Reprocessing of secondary steel into new steel	30.8
 Retail trade (except of motor vehicles and motorcycles); repair of personal and household goods	21.5
 Production of electricity by solar photovoltaics	14.7
 Wholesale trade and commission trade (except of motor vehicles and motorcycles)	12.2
 Reprocessing of secondary wood material into new wood material	5.0
 Sale, maintenance, repair of motor vehicles , motor vehicles parts, motorcycles, motorcycles parts and accessories	4.7
 Research and development	3.5

Industries set to have the most job losses under circular economies (absolute number of jobs)

Sector	Jobs (millions)
 Manufacture of basic iron and steel and of ferro-alloys and first products thereof	-28.2
 Mining of copper ores and concentrates	-20.8
 Manufacture of wood and of products of wood and cork (except furniture); manufacture of articles of straw and plaiting materials	-10.2
 Mining of iron ores	-8.0
 Manufacture of glass and glass products	-7.6
 Mining of coal and lignite; peat extraction	-4.9
 Mining of nickel ores and concentrates	-4.3

Source: ILO^[26]

Sustainability in agriculture will reshape the rural economy and work.

It also requires investment in infrastructure, such as irrigation, roads, storage, extension services, and research and development. Conservation agriculture and organic agriculture are sustainable alternatives to conventional commercial agriculture. Both approaches change how the land is managed and the inputs required. Both bring changes to the distribution and kinds of labour.

Promoting sustainability in agriculture will change rural economies



[There is a video on the job numbers here.](#)
(In English) (time: 2 min).

PROTECTING WORKERS AND THE ENVIRONMENT



Fishermen on a break, Inle lake, Myanmar, Burma.
Photo: Julien de Salaberry/Unsplash.

Social protection is a pillar of decent work. There are examples where it has been used to:

- **Ensure income security to workers and households facing negative effects of environmental degradation.** Some countries (e.g. Ethiopia, Kenya) are adapting existing social protection schemes to cater for the income- and food-security risks that arise from floods or droughts. Social protection will be essential to support households and communities in coastal areas

vulnerable to sea-level rise and others displaced by climate-related phenomena.

- **Protect workers in shrinking or disappearing industries.** Examples are forestry in China and coal mining in Poland.
- **Protect workers affected by increased prices.** Egypt did this after reducing fossil fuel subsidies.
- **Meet environmental goals.** In India communities can get paid for taking care of ecosystems while achieving social goals. In South Africa there are public work programmes which also contribute to environmental adaptation or mitigation.

[Watch a video on kinds of social protection here](#) (In English)
(time: 1 min 37 sec).

SKILLS FOR THE GREEN TRANSITION



A Better Work Nicaragua Enterprise Advisor carries out a training session with garment employees in a local factory in Nicaragua.
Photo: Marcel Crozet/ILO.

We need to develop skills for sustainable economic activities.

The ILO surveyed 27 countries and found that in 21 countries **skills mismatch** is considered a major obstacle to advancing a transition towards sustainability.

[There is a video on this here.](#) (In English)
(time: 1 min 49 sec)

RESOURCES

On the [course site](#) you will find relevant studies, videos and sites for further exploration of the topics in this session. You'll also find all references.



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