

# CLIMATE CHANGE AND THE JUST TRANSITION FROM COAL



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*'the making and unmaking of social order'*

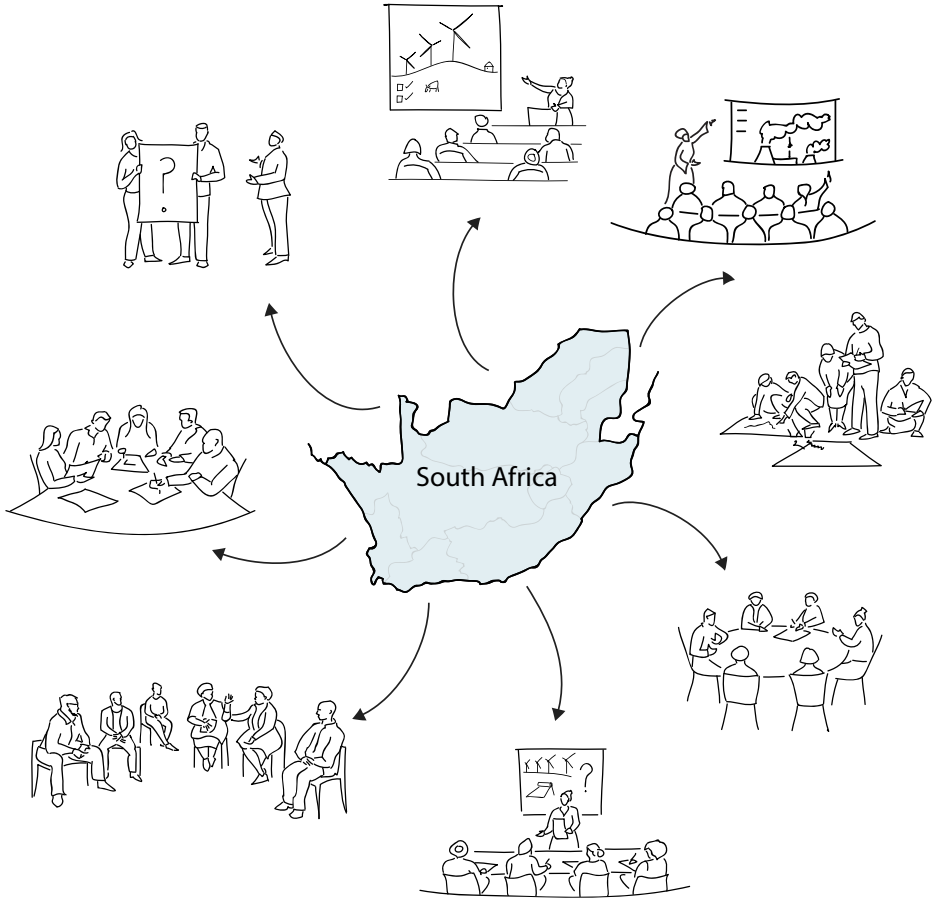
# PREFACE

This booklet provides background and explanations about the need for a Just Transition from fossil fuels, based on the urgency of climate change. It is in response to requests made in knowledge exchange workshops between communities on the Mpumalanga Highveld and the SWOP coal research project in 2019. Its aim is to empower communities to participate in debates about the Just Transition from fossil fuels. It will be presented for use by activists and communities in coal-affected communities, and revised in the light of comments from those who have used it.

The project gratefully acknowledges the contributions of the Friedrich Ebert Stiftung (Foundation), who supported the research and this publication, in particular Kaamilah Joseph, who worked with us every step of the way.

We are grateful to the inputs of community activists and other community members, especially Promise Mabilo, Elizabeth Malibe and Yvonne Sampear. The booklet was written by Jacklyn Cock, Victor Munnik and Dineo Skosana, translated by Lebogang Ngobeni, illustrated by Tammy Griffin and laid out and managed for print by Nicolas Dieltiens.

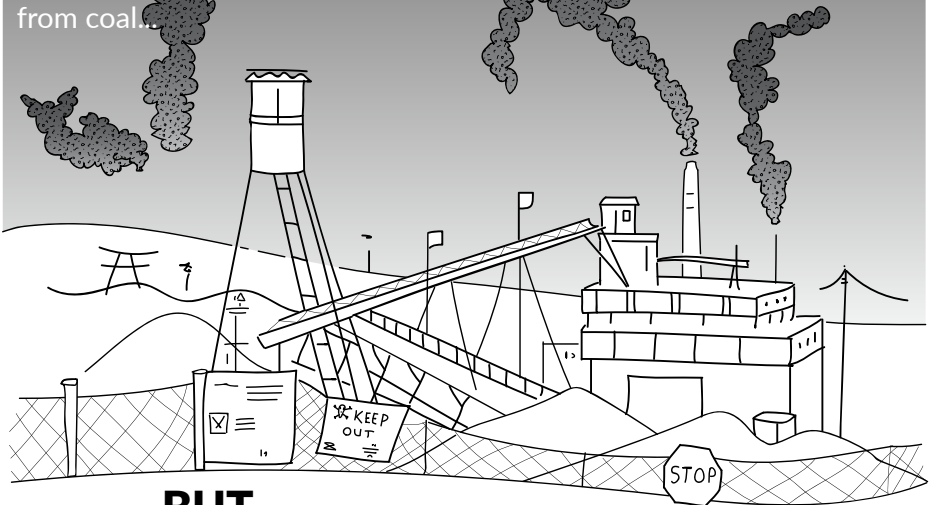
# A JUST TRANSITION



## TRANSITION MEANS CHANGE – WHY DO WE NEED THIS CHANGE?

South Africa is facing a crisis – unemployment is growing (it is now almost 40%), hunger is increasing (almost half of our people go hungry at times) and the gap between rich and poor people is growing. South Africa is now the most unequal society in the world. So we have to change.

This change is urgent because we also have a climate crisis (see next section) The immediate cause of this is mining and burning coal. We have 1,600 operating coal mines and 16 coal-fired power stations. Coal provides direct jobs for 80,000 people and 90% of our energy comes from coal...



## BUT

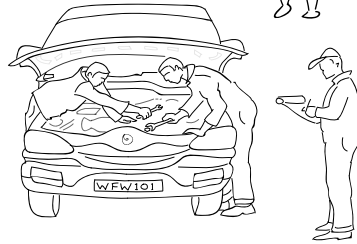
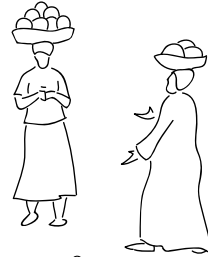
1. Many of these coal plants are old and should be closed.
2. Their closure is already underway.
3. This is good because coal kills people and nature.
4. It does so through greenhouse gas and other emissions.
5. These pollute/poison our air and water.
6. This makes people sick, especially with breathing problems
7. All over the world, coal is driving climate change, which is hurting everyone, but especially poor people living in the Global South.
8. We can stop using coal because we can get energy from the sun and wind. This renewable energy is cheaper.





## WHAT WILL THIS CHANGE MEAN?

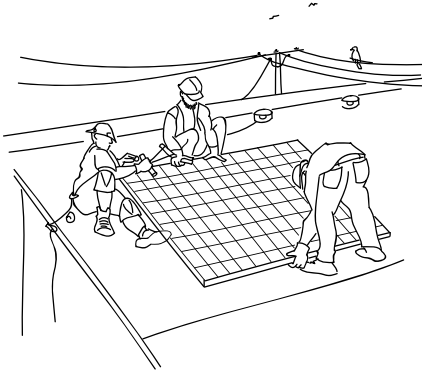
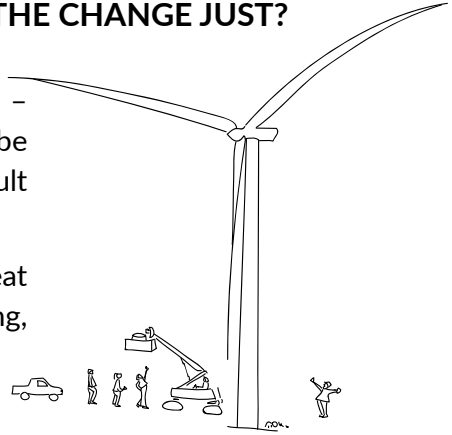
1. Some of the 80,000 coal workers will lose their jobs as the coal mines and coal fired power stations close.
2. People who live near mining plants and make a living from selling food, cooking, washing cars and repairing shoes (informal sector activities) will lose some of their customers. They need help with creating new forms of livelihoods. This will mean diversifying the regional economy of Mpumalanga.



3. All these people must be protected with new jobs, retrenchment packages, pensions, re-skilling and placement in other jobs to make the change to renewable energy just for them. This is especially important for workers on short-term contracts who got their jobs through labour brokers.
4. These are the people who have contributed the most and benefitted the least from building South Africa's coal economy.
5. But the change in a just transition must benefit everyone, even the rich people who live by exploiting other people and nature. Sharing and living simply will make them better people.

## HOW CAN WE MAKE THE CHANGE JUST?

1. Justice means that everyone – especially the poor – should be able to lead a good life as a result of any change.
2. This means that everyone can eat well, with good education, housing, healthcare and decent work.



3. Renewable energy plants should be owned by the people (“socially owned”) and operated to meet people’s needs and not just make profits for large corporations.
  4. The changes mean planning and thinking and talking about the future we want to see for ourselves and our children.
5. But we cannot leave the planning to government or the energy companies because they only want profit.
  6. Workers and communities must work together and **DEMAND TO BE INCLUDED** at every stage in the planning and talking.



7. The Minister of Energy has promised that this will happen through the Presidential Climate Change Commission proposed as part of the agreement at the 2018 Jobs Summit.

- In the end, all citizens will benefit as energy will be cheaper and people will be healthier.
- The planet we call Earth will not survive unless we make all these changes.

10. Millions of people all over the world are marching in the streets and demanding that governments declare a climate crisis and act to reduce carbon emissions, and take the first step to create a more just and sustainable world.

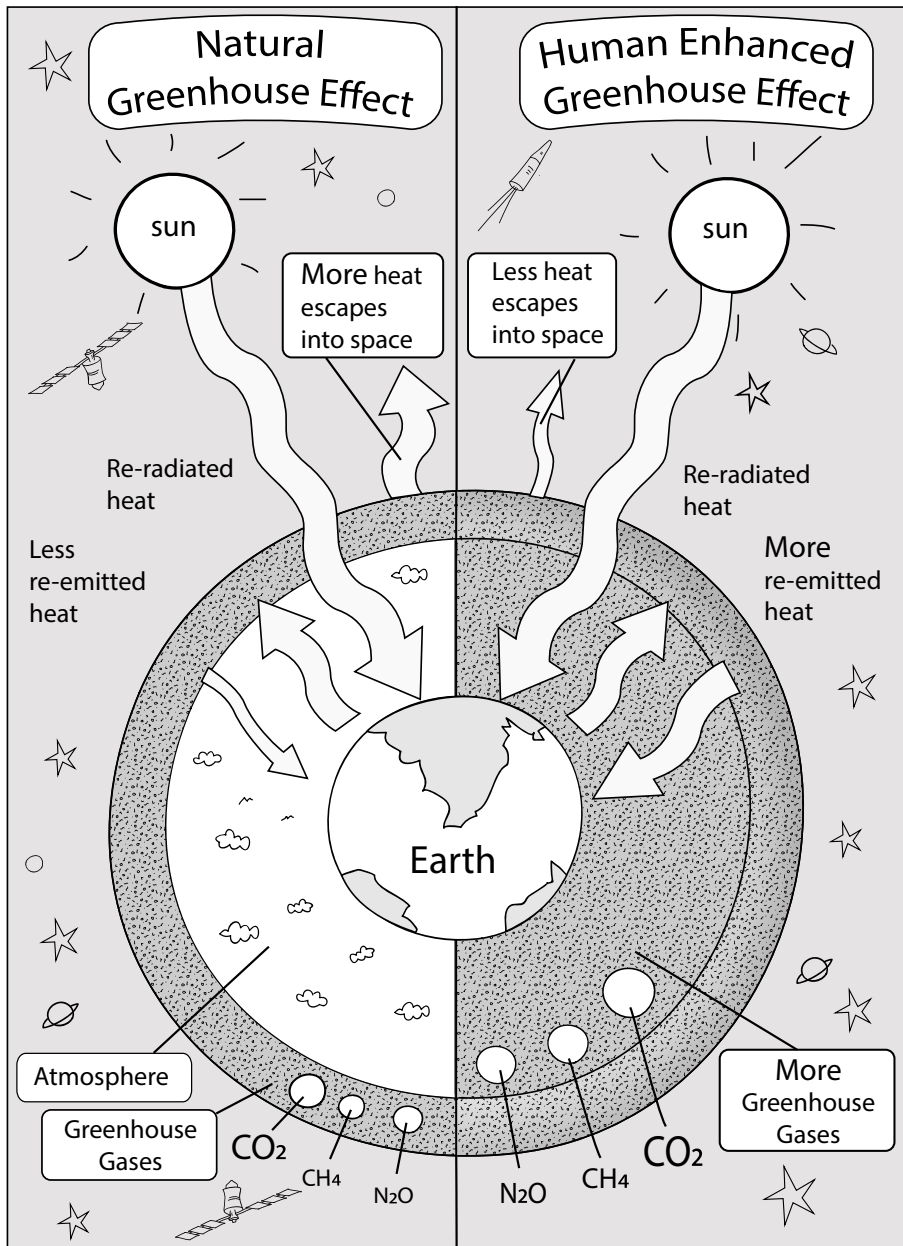


- For us in South Africa, solving the climate crisis must also solve the poverty, unemployment and inequality crises.
- This means that rich people who exploit workers must change. They must learn to share and live simply so that others may simply live, as Gandhi said.
- Alone we are powerless to make these changes for a better world, but if we act together in solidarity, we will be strong.





# WHAT IS CLIMATE CHANGE?



1. The atmosphere is the layer of air around the planet Earth. The atmosphere consists of gases. One gas is the oxygen we breathe to stay alive. Another gas is carbon dioxide, the main greenhouse gas (another one is methane).
2. Greenhouse gases in the atmosphere, mainly carbon dioxide, keeps the heat of the earth from escaping into space, but too many greenhouse gases in the atmosphere keep in too much heat.
3. This heat puts energy into the weather system, which means that bigger storms can now happen, like cyclone Idai that hit Mozambique and caused thousands of people to flee from their flooded houses. They are now refugees.



4. This heat also raises the temperature of places like the inland of South Africa. It causes more droughts and more floods. It makes it difficult to plant the same crops and farm with the same animals as before.



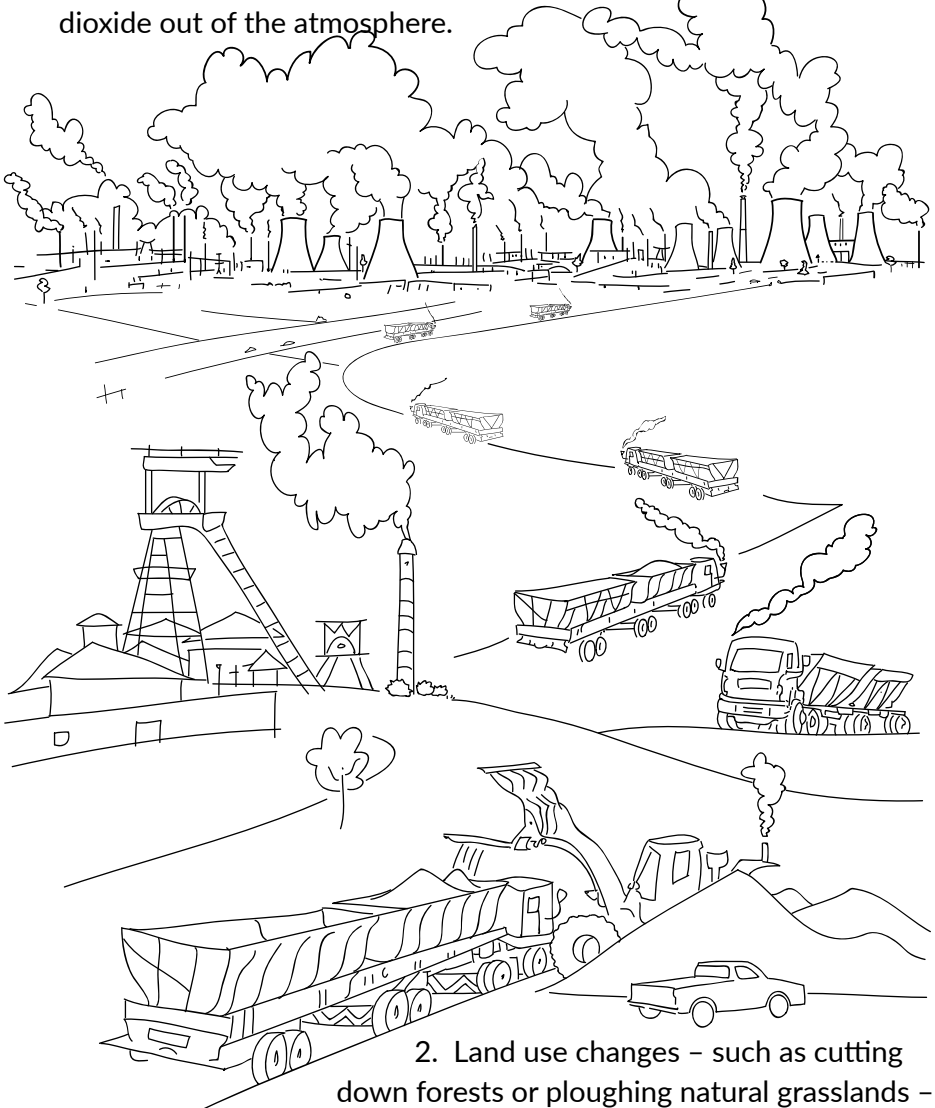
5. The changes in temperature make it difficult for the plants and animals who are part of ecosystems, to survive because their conditions change too much. Some plants and animals will find new places to live, but others will not, and will go extinct (die out forever).



6. The heat melts the ice at the poles of the planet and the ice sheets next to them, pouring extra melted water into the oceans, and causing the oceans to be fuller and to rise. This sea level rise is drowning some islands and is also making sea storms and tsunamis (huge waves from the sea) stronger. This will make it dangerous to live close to the sea. (Half of the people in the world live next to the sea.)

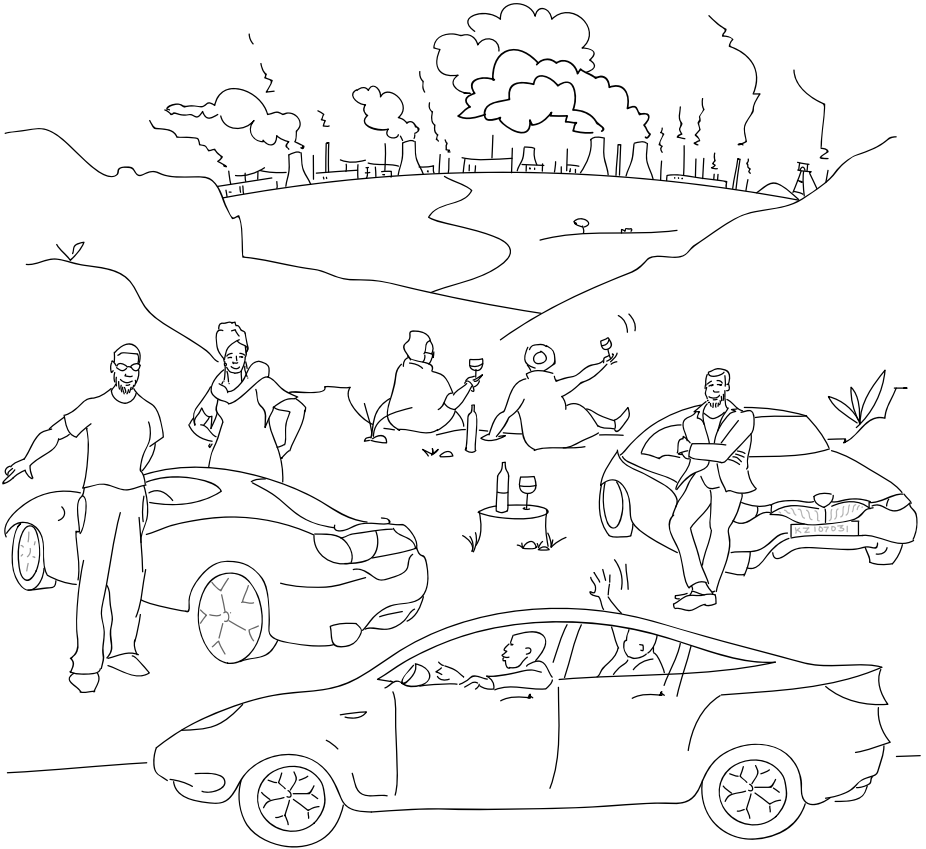
## WHAT CAUSES CLIMATE CHANGE?

1. Carbon dioxide is the main cause of climate change. Most carbon dioxide comes from the burning of fossil fuels like coal and petrol. To slow down or stop the heating of the planet we need to stop burning fossil fuels and restore the earth so that it can keep more carbon dioxide out of the atmosphere.



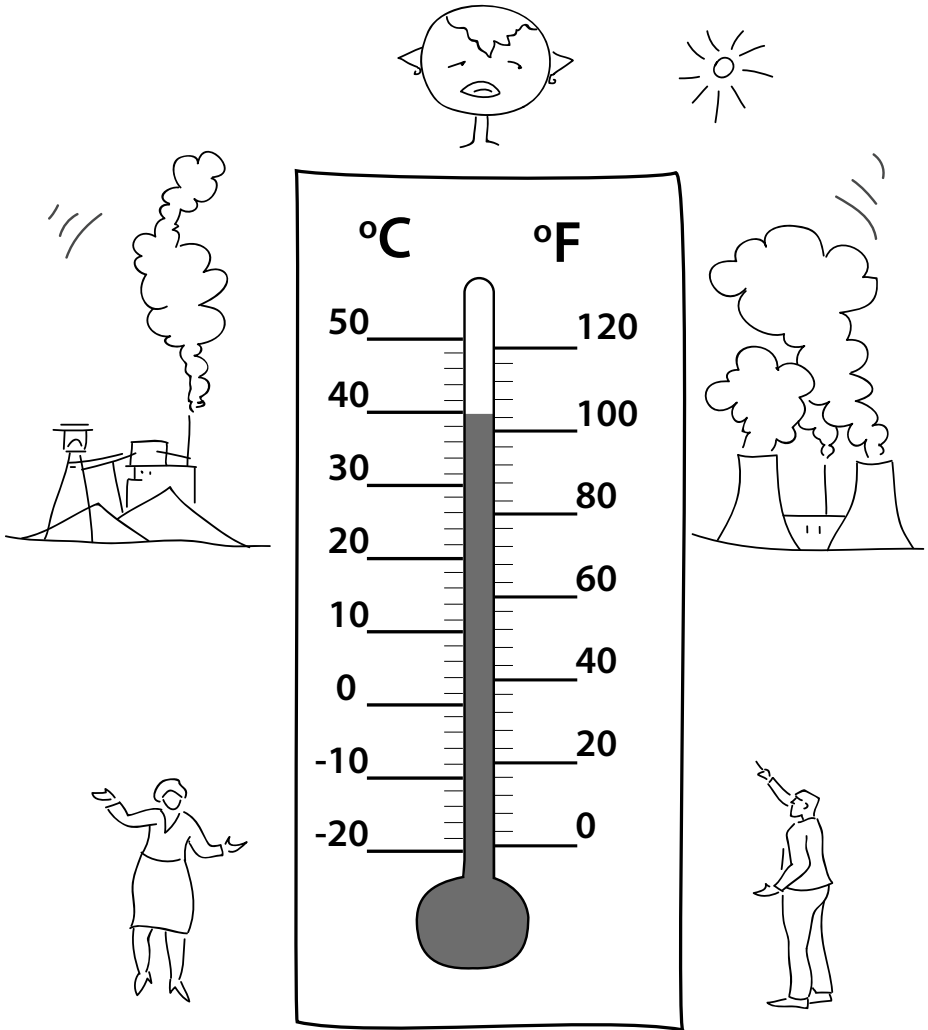
2. Land use changes – such as cutting down forests or ploughing natural grasslands – also releases carbon dioxide into the air.

- Carbon dioxide ( $\text{CO}_2$ ) can stay in the atmosphere for 100s or even 1000s of years. This means that emissions of  $\text{CO}_2$  will affect the future of many generations to come.



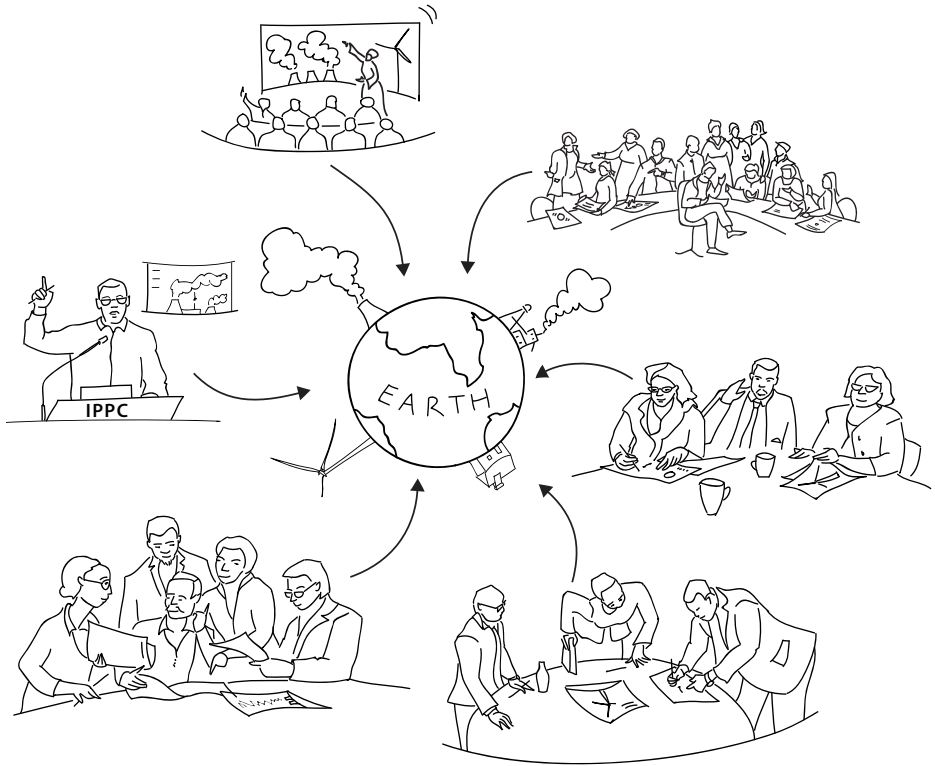
- Carbon dioxide levels in the atmosphere used to go up and down between 180 and 280 parts per million, because of natural changes including the seasons. But since the industrial revolution (when the steam engine was invented and factories were built), carbon dioxide levels have grown to more than 400 parts per million, and are still increasing.
- Carbon dioxide levels are increasing because of overconsumption and wastefulness of rich people. This happens because of private ownership of productive resources and the inequalities of capitalism.

6. This level of climate change means that temperatures have already risen by nearly 1 degree Celsius, and could rise to over 2 degrees Celsius, and even 4 degrees or higher.



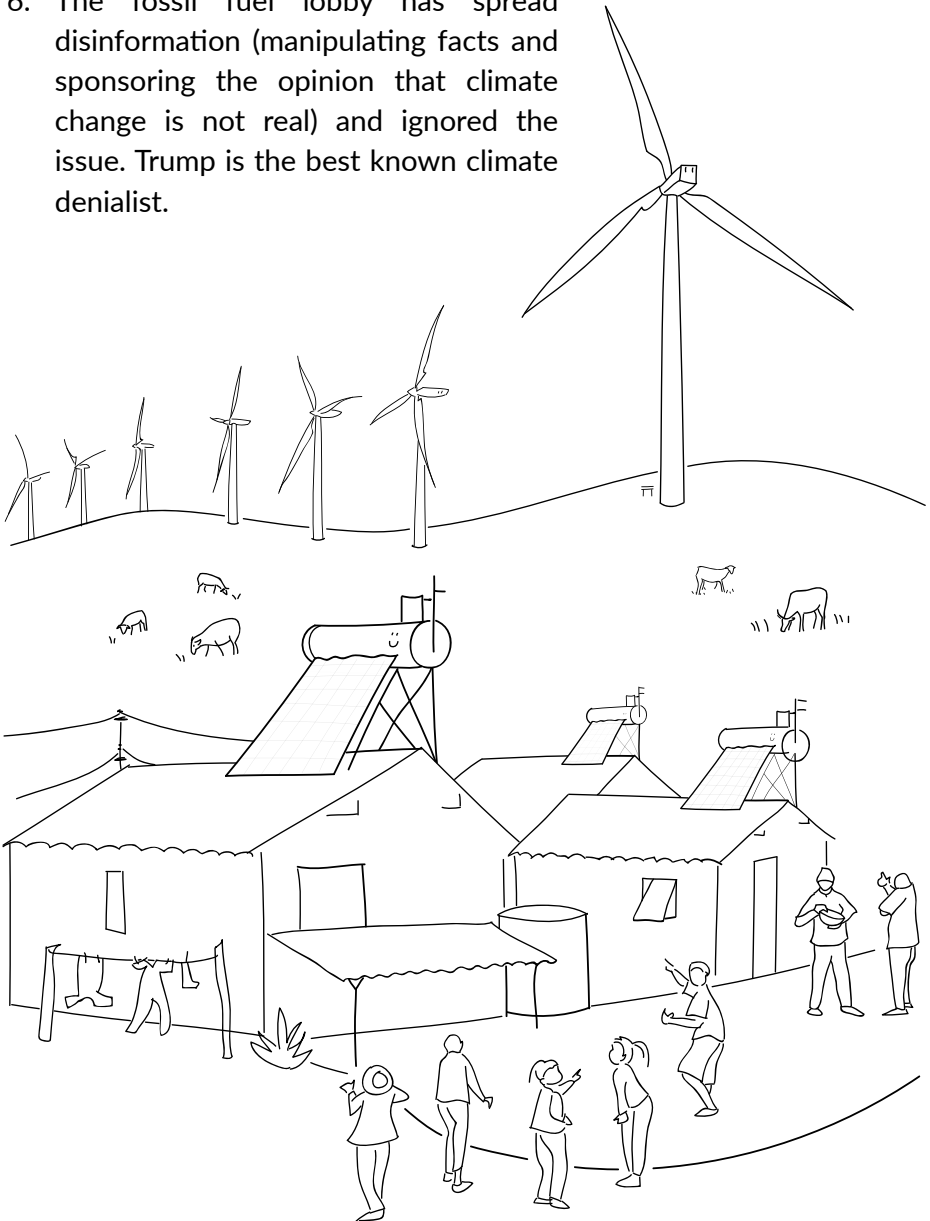
7. To make things worse, there are ‘tipping points’ in climate change. For example, the frozen earth in the north of Russia (the tundra) is warming up and can release huge amounts of methane (another greenhouse gas). This will send the planet’s temperature up more quickly.

## HOW DO WE KNOW ABOUT CLIMATE CHANGE?



1. Thousands of scientists around the world are measuring climate change.
2. Scientists agree that climate change is real and that climate change is caused by people.
3. Information about climate change is put into reports by the International Panel on Climate Change (IPCC). These scientists review the work of thousands of other scientists and agree with governments in the United Nations to publish these reports.
4. The IPCC reports warn that we are already at a dangerous level for climate change and that we must drastically cutback on the use of coal.

5. Governments have negotiated how to slow down and stop emissions from fossil fuel, but have failed.
6. The fossil fuel lobby has spread disinformation (manipulating facts and sponsoring the opinion that climate change is not real) and ignored the issue. Trump is the best known climate denialist.





## WHAT CAN BE DONE ABOUT CLIMATE CHANGE?

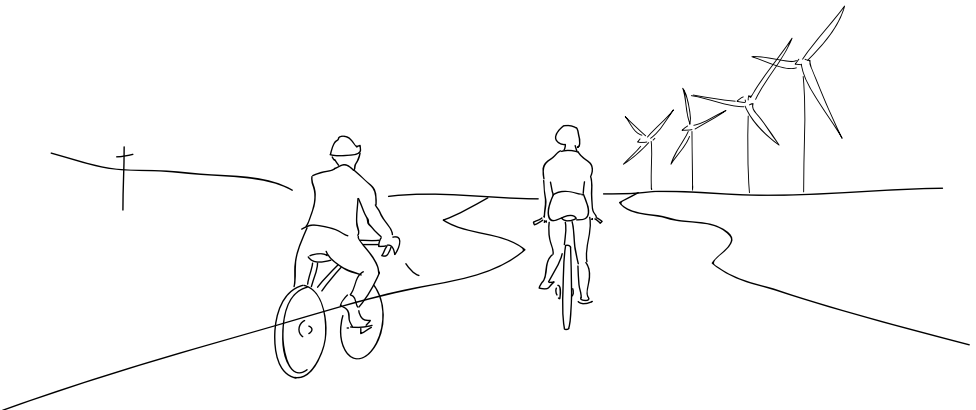
1. Fossil fuels like coal can be replaced by renewable energy technologies that do not emit greenhouse gases and do not cause climate change.



2. Healthy soils, like those used in organic agriculture, permaculture or agro-ecology, as well as those in healthy ecosystems, can draw carbon dioxide out of the atmosphere. However, this is not nearly enough to continue using fossil fuels.

3. People need to prepare for the impacts of climate change like drought and floods. Local government needs to build better roads and protect other infrastructure. Farmers need to use plants and animals that can cope better with drought and heat. Local food production is better than importing food from far away.

4. Climate change will be difficult to survive. People will need each other, and we will need a new economic system, one that serves the people, rather than pushes them to the edge.



## ORGANISATIONS

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☎ 011 356 5860

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