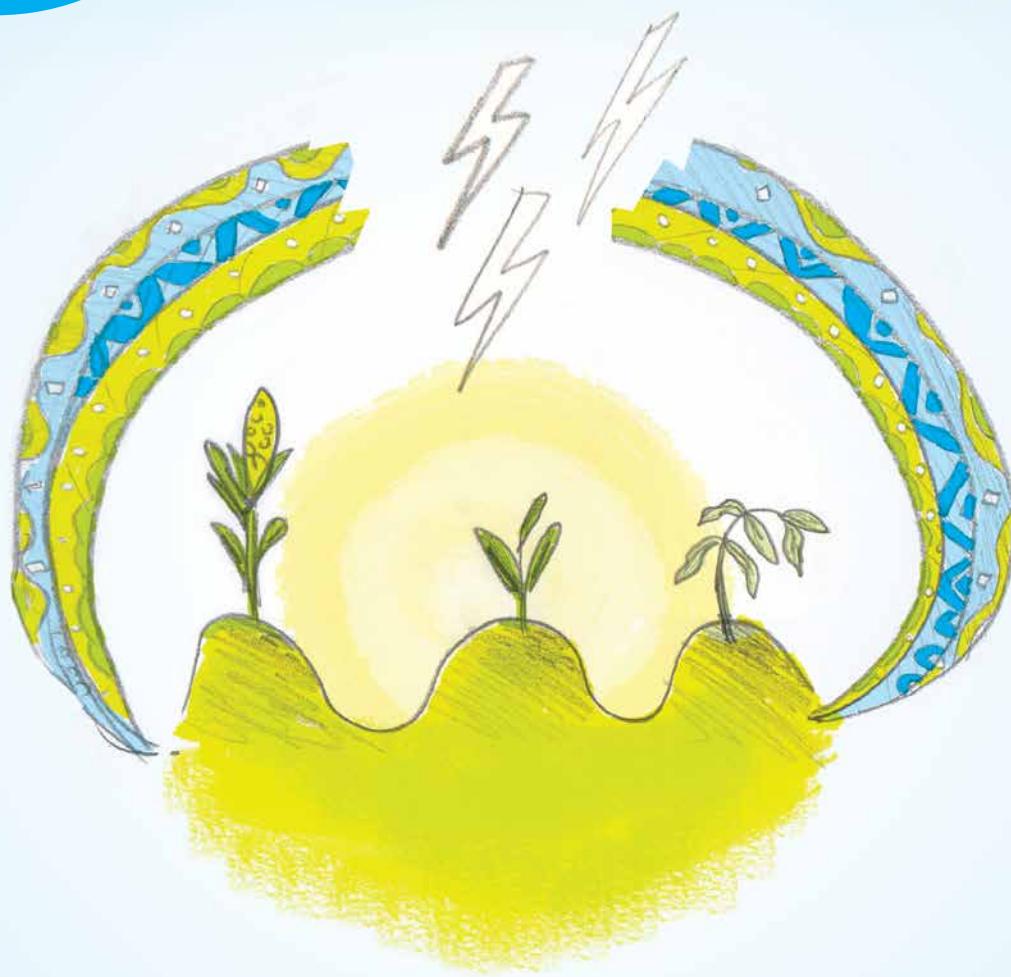




# CLIMATE CHANGE AND CLIMATE JUSTICE



## BACKGROUND FOR TEACHERS

- Climate Change
- Climate Justice
- Food Miles

Including  
**WORKSHOP  
TOOLKIT**  
and  
**RESOURCES**

# WHAT IS CLIMATE CHANGE?

Greenhouse gases (GHG) such as carbon dioxide occur naturally in the atmosphere and serve to trap heat from the sun. Without it the sun's heat would rebound off the earth's surface and back into space, the earth would freeze and life on earth would be unsustainable.

However, since the Industrial Revolution human activity has been responsible for greenhouse gases being released at an ever increasing rate, primarily due to the burning of **fossil fuels** such as coal, oil and gas. A build up of these GHGs in the atmosphere have led to 'the greenhouse effect' and global warming.



Stephen Kangwa, Malela, Northern Province, Zambia



The failure of seasonal rains has left fields parched and barren across much of West Africa. *(Photo courtesy of Self Help Africa)*

## ...AND GLOBAL WARMING RESULTS IN CLIMATE CHANGE

- The burning of fossil fuels is the major contributor to GHGs. As well as that, change in land use including **deforestation**, and agriculture practices such as cattle breeding, rice cultivation and methods of fertilisation all contribute to an increase in GHG emissions.
- Trees and plants absorb CO<sub>2</sub> and produce oxygen; thus natural vegetation, in particular forests, form carbon stores or 'sinks'. So as the Earth's forests are cleared to provide land for agriculture and trees for fuel, paper and construction materials, carbon dioxide stores are lost and more carbon dioxide is released into the atmosphere.
- With the increased concentration of GHGs in the atmosphere, effects from the rise in temperature are evident: glaciers are melting; rainfall patterns are disrupted and drought is becoming more common; and hurricanes, tropical storms, heavy rains and floods are becoming more frequent and severe.



## WHAT IS CLIMATE JUSTICE?



- A fundamental proposition of climate justice is:  
- *those people on the front lines of climate change have contributed least to the causes of the climate crisis.*
- **Developed countries are the major emitters of GHGs**, and Ireland's per capita emissions are among the highest of any country in the world.
- As Mary Robinson says, "Climate change can be difficult to communicate. It is often seen as distant and highly technical. **Climate justice** focuses our attention on *people*, rather than ice-caps and greenhouse gases. I think this makes the threat of climate change more tangible. Considering the lives already being affected by climate change challenges us to reflect on the devastating harm being done by so-called 'business-as-usual'."
- Some students, responding to publicity given to climate change-deniers (or perhaps repeating a parent's opinion), may claim that climate change is a 'natural' phenomenon. As the US National Aeronautics and Space Administration (NASA) state, 97% of scientists – **who deal in evidence not belief** - maintain climate change is induced by man, which is sufficiently convincing for most people.
- The causes of climate change are related to lifestyles of **overconsumption in richer countries**. Vulnerable people whose rights to food, shelter, water and life are already precarious, are being further threatened.



Mercy Amos with baby Monica draws water from the Dambo wetland, which is also used for planting maize. Optimising the use of the wetlands is vital in Malawi's efforts to adapt to climate change

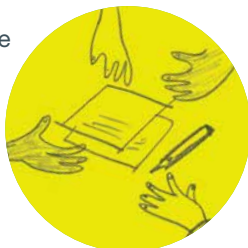


Stoves contribute to clean environment and reduces deforestation as it uses 40% less firewood. This is one way of building community resilience against climate change and variability

# FOOD MILES

## WORKSHOP TOOLKIT

- Begin by asking students to move desks to the side and seats into a large semi-circle.
- Start with an ice-breaker (see Appendix for suggestions) such as the Geography quiz.
- Introduce the subject and what you intend doing with the class.



## FOOD MILES

(Break the class up into groups of 3-5 students depending on class size.)

In groups: each with piece of paper and pen

1. Four items consumed for breakfast in the group (few minutes)
2. What is each composed of (e.g. muesli: nuts, raisins, sugar, oats, wheat...)? Then pause the exercise.
3. Ask what do each of the following mean: '**Consumption**', '**Carbon Footprint**', '**Sustainable**', then explain if necessary.
4. **Video:** Food Miles - from 1 minute in. Point out it is a UK video but the information is mostly relevant to us here in Ireland too.
5. Return to breakfast items - Origin of the components?
6. Ask groups for their results and discuss.



We usually take our breakfast for granted, but have we considered the Food Miles?

It's about awareness and choices we make. ("I still drink my coffee").

# CLIMATE CHANGE AND CLIMATE JUSTICE



"What is the difference between global warming and climate change?"

Ask for contributions then clarify.

- **Global warming:** the heating up of the Earth caused primarily by the burning of fossil fuels (oil, coal, natural gas), which releases heat-trapping carbon dioxide into the atmosphere.
- **Climate change:** the altering of climate patterns on Earth caused by global warming (e.g. more rain, more intense and frequent storms, floods or droughts).





## Group work: How Climate Change works

### Video - 'What's the Deal with Carbon'.

Introduce it as a basic 3 minute animation that very simply explains how climate change happens, through explaining carbon and its role.

- After the video give each group one of the following terms:

'Fossil Fuels', 'Industrialisation', 'Greenhouse Effect', 'Carbon Emissions', 'the Carbon Cycle'. (These are concepts that come up in the video.)

- Give them a few minutes to come up with an explanation of their term, perhaps checking in with them to help.
- Then ask each group to explain to the class, filling in info if necessary. Prompting question: "And what does it have to do with Climate Change?"



### OR

- Have two columns on the board with headings, "Cause" and "Effects". Ask some of the groups to suggest some causes of Climate Change, and others effects. List these up on the board/ post-its while discussing them.



## Climate Justice

- "What are some examples of places and populations that are the most vulnerable to climate change (droughts, rising sea levels, storms...)" / or, "some examples of changes in climate or extreme weather around the world?"

If answers tend to mirror current news reporting e.g. Texas or Florida, perhaps ask about effects on poorer parts of the Caribbean. Do we hear about devastating weather in poorer parts of the world as much as the West? Any ideas why not?

- Briefly refer to the Industrial Revolution 250 years ago. And how it made production of goods more efficient and cheaper, improved standards of living...
- "In the last 200 years, which countries have benefitted the most from burning coal for energy/ industrialisation?"

- Are these the same countries that will be most impacted by Climate Change?

"Climate Justice - those who are being hit worst by climate change are the most vulnerable around the world who have done the least to cause it."

- It is the world's poorest people who are hardest hit by devastating droughts, floods and other extreme weather events. The massive injustice is that climate change is caused by the world's richest countries.
- Around 800 million people are currently at risk of hunger (about 12% of the world's population). We call this issue food security. Many rivers and lakes are drying up in drought conditions forcing people to walk very long distances to gain access to safe, clean water. We call this issue water security.
- "Do you think this is fair?"



## Exercise in groups

- Why might people with higher incomes be responsible for more emissions?

(Possible responses: increased ability to buy 'things' and use resources; bigger houses mean higher heating bills; bigger and more cars; foreign holidays...)

- What are other reasons why some people may have higher emissions than others? What are some barriers people face in reducing their emissions?

(Possible responses: a family renting a poorly-insulated house; they may live in a rural area without public

transport; they may need a vehicle for work, shopping; nursing homes, etc.)

- If Ireland needs to reduce their GHG emissions, should some people reduce theirs more than others? Why or why not?

(Possible considerations: low income households already have lower emissions so wealthier households should do more; high income households may have extravagant lifestyles because they can afford it; transition may be easier for people in urban areas than for those in rural areas; children, seniors or people with disabilities will likely have challenges in areas like transportation.)

- The issue is 'What's fair?'





## Moving Debate

As a warm up (and an exercise in self-managing and negotiation), divide the class into lines - works best with 10-12 in a line. Challenge each line to complete the task first, asking them to line up:

1. Alphabetically by first names. Check winner by asking them their names quickly. If same name, reason for one in front of the other? (Maybe because of surname, or second name?)
2. Next, alphabetically by surnames.
3. Finally, alphabetically by mothers' first names.

Then they're ready! Stress that **listening to others** is important if the Moving Debate is going to work.

### Example statements

*"Climate Change isn't happening, it's just a scare story"*

*"Young people should have a vote when the country is dealing with Environmental issues"*

*"Climate change is not affecting us in Ireland"*

*"There's nothing I do that contributes to climate change"*

*"Ireland should only be concerned about our economic interests, not how Climate Change affects faraway countries."*



## Action Exercise

Something like Climate Change can sometimes seem too overwhelming to tackle, and we don't engage with the issue. But there are definitely ways we can approach it in our lives.

**In groups:** Action ideas, what you can do.

- On a *personal and family* level
- In the school
- With the *local community*.



## Video: Morgan Freeman narrating 'Our Future'.

Its an optimistic message that there are ways to tackle Climate Change.

"What positives did you get from that?" (There are alternatives. But we need to work together...)



## Summarise (with the students help)

Then finish with:

- A commitment to **climate justice** is a way to ensure fairness for people today and into the future, both here in Ireland and around the world.
- Climate change is a huge global problem, but there are **lots of solutions**. The key is getting people to **work together to make change**.
- Climate action is **often local**. Young people in Ireland are concerned about climate.



Baba Wedrago, Sika Village, Burkina Faso.

## RESOURCES

### Food for Thought – Food Miles

<https://www.youtube.com/watch?v=w5Y4qfBMRSg>  
(start from 1 minute in)

### 'What's the Deal with Carbon'

Three minute animation simply and clearly explaining Climate Change.

<https://www.youtube.com/watch?v=2Jp1D1dzxj8>

### Video - developmenteducation.ie

Two brief, punchy animations by DevelopmentEducation.ie highlighting how our 'consumption' in the West is unsustainable. Part 1 and 2.

[https://www.youtube.com/watch?time\\_continue=10&v=9aQbMrHbKWE](https://www.youtube.com/watch?time_continue=10&v=9aQbMrHbKWE)

[https://www.youtube.com/watch?time\\_continue=1&v=M3rXtb\\_Y2qc](https://www.youtube.com/watch?time_continue=1&v=M3rXtb_Y2qc)

### Video on consumption

Minute long, fast paced video on consumption, and the unsustainable 'linear' economic system.

<https://www.youtube.com/watch?v=PU-hevOX0Qo>

### Youth Council of Ireland

Ideas from Youth Council of Ireland for activities on Climate Change

[http://www.youthdeved.ie/activities/climate\\_change](http://www.youthdeved.ie/activities/climate_change)

[http://www.youthdeved.ie/sites/youthdeved.ie/files/Chain\\_Reaction.pdf](http://www.youthdeved.ie/sites/youthdeved.ie/files/Chain_Reaction.pdf)

### Video - Our Future

Morgan Freeman narrates a hopeful video on avoiding Climate catastrophe.

<https://www.youtube.com/watch?v=8YQlaOldDU8>

### Video - Drop in the Ocean?

Ireland and Climate Change

<https://vimeo.com/116763772>

### Video - 350.org

The environmental activist organisation 350.org on actions that can be taken against oil companies

<https://www.youtube.com/watch?v=m95K7LCIIC4>

### Mary Robinson

In an interview Mary Robinson explains Climate Justice

<http://roadtoparis.info/2015/07/29/qa-with-mary-robinson-what-is-climate-justice/>

### Climate Change exhibition of photos.

Twelve large, striking portraits of farmers from Self Help Africa projects with an explanatory passage under each. Available for loan, or downloadable .pdf files.



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**developmenteducation.ie**  
**selfhelpafrica.org**