



# **The Climate Connection**

Climate change and girls' education: school resource pack



## Who is this resource for?

This resource is designed for teachers and facilitators in education settings for young people aged 11 to 17. It can be used in mainstream schools and also in English-language settings.

This resource aims to promote understanding and informed action around the issues and interlinkages between climate change and girls' education.

Over the course of six lessons (steps), pupils will:

- understand the urgent importance of addressing climate change and the importance of climate justice
- explore how climate-related disasters often amplify existing gender inequalities and how girls' education can benefit all of society in adapting and mitigating for climate change whilst enabling a fairer and more sustainable society

 learn from other youth activists from around the world and think about the stages that might be involved in planning for social action

As part of their learning, pupils will have the opportunity to develop core skills in critical thinking and problem solving, citizenship, student leadership, creativity and imagination, and aspects of digital literacy. They may also have the opportunity to engage in international partnerships and share some of the activities and learning with partner schools.



## Age range

These activities are designed for use with pupils aged 11 to 17. Some of the activities could be adapted for use with younger pupils. As well as considering how best to adapt these materials to suit the needs and abilities of each learner, we encourage teachers to think about how to apply learning to best effect in the context of their particular community and the national curriculum of their country. Teachers may also need to think about how they discuss issues of gender-based violence in ageappropriate ways and be ready to respond to pupils' responses or refer pupils to trained staff who are able to manage concerns about this topic.

## **Curriculum alignment**

The resource relates to English, social sciences, personal social and health education, citizenship, science and mathematics.

This learning unit is also designed to support the United Nations' Global Goals for Sustainable Development (SDGs), in particular Goal 5: Gender Equality and Goal 13: Climate Action. By becoming informed and engaged citizens, young people will be better able to play their part in contributing to a more equitable and sustainable future.

# Overview of the topic for teachers and facilitators

All over the world, people are becoming increasingly aware of climate change. Extreme weather events such as heat waves, floods and hurricanes are becoming more common and having devastating effects on communities around the world. The latest report from the world's leading climate scientists states even more conclusively than before that human activity is changing the climate in unprecedented and sometimes irreversible ways. In response, the UN has declared a 'code red for humanity'. To prevent warming beyond 1.5°C, we need to reduce emissions by 7.6 per cent every year, from this year to 2030. (UNEP 2019¹)

Many people may not be aware of the links between girls' education and climate change. The Malala Fund² estimated that in 2021 climate-related events would have prevented at least four million girls in low- and lower-middle-income countries from completing their education. If current trends continue, by 2025 climate change will be a contributing factor in preventing at least 12.5 million girls from completing their education each year. Disadvantaged pupils, and girls especially, suffer more than others:

... with secondary age girls most at risk of staying home or marrying early because their families have fallen into poverty. 2.5 million additional child marriages are expected in the next five years and over 1 million adolescent pregnancies in the next 12 months. Rates of gender violence affecting girls are thought to have doubled compared to when schools were open (i.e. from 8% to 17%) [...] Globally, at least 200 million adolescent girls live on the frontlines of the climate crisis and those who are already marginalised through poverty, displacement or disability are likely to be worst affected. Climate change impacts are disproportionately felt in developing countries and girls are doubly disadvantaged because of social expectations about their roles<sup>3</sup>.

When girls go to school, they learn the skills to anticipate and to overcome climate-related shocks, like the critical-thinking capabilities needed to process and act on weather reports. Education also increases: climate resilience

and adaptive capacity (e.g. consequential thinking and communication skills to be able to understand and explain risks to others); systems thinking skills (e.g. understanding how human activities like deforestation may contribute to landslides and flooding); and leadership skills for organising. Girls who go to school are also more likely to engage in collective action and systems change toward sustainability.

Countries that have invested in girls' education have suffered far fewer deaths from droughts and floods than countries with lower levels of girls' education.<sup>2</sup> Girls' education, particularly secondary education, has been identified as the most important socioeconomic determinant to reduce vulnerability to the impacts of weather-related disasters and extreme weather.

The School Strikes for Climate have often been led by young people, following the examples of Greta Thunberg and Vanessa Nakate, as many of them feel their education is not preparing them for a rapidly changing and uncertain future. Teachers need to empower young people to be critically informed citizens able to take positive action. Knowledge alone is not enough:

Research shows that a participatory, democratic approach to learning is key to encouraging students to act on the knowledge they acquire. This kind of education is not about concepts and facts, but rather about stimulating reflection on the causes and effects of climate change through exchanges with peers. Participatory learning helps students develop critical and independent thinking skills and increases their sense of political agency, allowing them to imagine a different future and take action towards it.

(Malala Fund)

¹ https://www.unep.org/explore-topics/climate-action/facts-about-climate-emergency

<sup>&</sup>lt;sup>2</sup> A greener, fairer future: Why leaders need to invest in climate and girls' education (Malala Fund 2021)

<sup>&</sup>lt;sup>3</sup> Every girl goes to school, stays safe, and learns: Five years of global action 2021–26 (FCDO 2021)

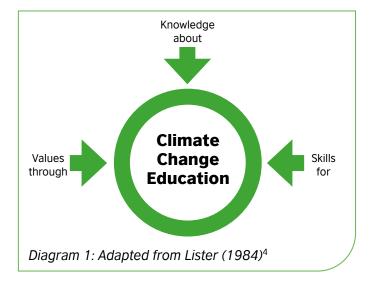
# Climate change education approaches

Climate change education needs a whole-school approach that includes everyone equally and fosters transformative, action learning. This section provides background knowledge for teachers so that they can engage their pupils and school community meaningfully in understanding and taking action on climate change.

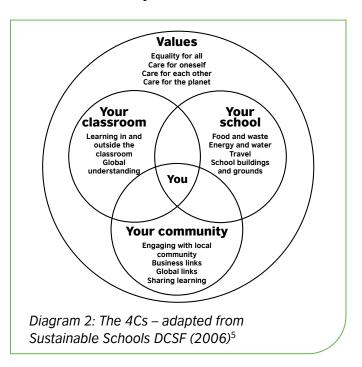
The following models are provided as background material for teachers to understand about human rights education and a potential holistic approach to creating sustainable schools.

Various models have been developed to support human rights education for young people. Diagram 1 below shows the interaction between 'knowledge about', 'skills for' and 'values through' with regard to climate change education.

People need 'knowledge about' climate change – the science, ideas for mitigation and adaptation, what might happen in the future; they need 'skills for' – critical thinking, problem-solving, team working, communication, dialogue; they also need 'values through' – developing habits and behaviours to live more sustainably, reduce carbon emissions, treat everyone fairly and respect nature. This pack has encompassed this approach through sharing knowledge, developing skills through various suggested activities and helping young people to develop values to engage meaningfully with climate change solutions.



If this resource pack is being used as part of an integrated approach to creating an eco-friendlier school, the model shown in Diagram 2 below may help structure the process of identifying opportunities to change key areas to become more environmentally sensitive. An adaptation of this model is shared with pupils in Step 4, Part 2 to provide a framework for them to identify areas they could engage with directly in their school and local community.



The 4 Cs model has been used as the basis of the UK sustainable schools' approach. It illustrates the need for a holistic approach, linking the Culture, Curriculum, Campus and Community. (See Slide 28.)

**Culture:** How the school promotes an atmosphere of equality and inclusion so that everyone feels involved and able to contribute as best they can. Girls are encouraged to do STEM subjects and boys are encouraged to do 'caring' subjects. An ethos of care for oneself, care for each other and care for the planet.

Ensure that bullying and sexual harassment policies are in place and implemented and that sessions are held with pupils on establishing healthy, equal relationships between boys and girls. School leadership represents senior roles held by men and women.

<sup>&</sup>lt;sup>4</sup> For more details of this model used by Amnesty International UK in their Human Rights education publication OurWorld, Our Rights (page 6) – <a href="https://www.amnesty.org.uk/files/2017-10/Our%20World%2C%20Our%20Rights.pdf">https://www.amnesty.org.uk/files/2017-10/Our%20World%2C%20Our%20Rights.pdf</a>?VersionId=zEeg9AtPenZxhRySN4JnnnN2zysVp.Lo

<sup>&</sup>lt;sup>5</sup> Department for Children, Schools and Families

**Curriculum:** Includes the importance of learning about climate change and the science related to it. Learning about green skills and jobs for a carbon-zero future. Learning skills of critical thinking, empathy, problem-solving, team working, communication and dialogue. Ensuring that materials and teachers are gender sensitive and not reinforcing gender stereotypes. Making sure extracurricular clubs are available equally to boys and girls (STEM and sports clubs welcome girls; drama and arts clubs welcome boys).

**Campus**: Managing the school buildings and grounds so that everyone feels safe and valued. Working towards carbon reduction, energy efficiency and use of renewable energy. Giving space for nature to thrive. Ensuring that facilities are safe for boys and girls to use, with perimeter fences and changing and washing facilities that are clean and safe to use.

**Community:** How the school shares its learning with the community – locally to globally. Finding people in the school and wider community who can help the school to be more inclusive, sustainable and climate friendly. Challenging and engaging communities on attitudes to gender-based violence and gender roles.

As mentioned above, the notion that knowledge leads to awareness and then to action has been countered with studies that document that knowledge and skills are not enough to change behaviour. The literature suggests that: 'more personal factors such as a deep connection to nature, personal relevance of the issue and personal agency towards action are important elements that contribute to successful behaviour change programmes' (Cordero et al 2020).6

Teachers may need to work on these areas according to their context, for example helping young people develop a deeper connection to nature (recognising and respecting the interdependence between the planet and all living things), finding ways to make the issues personally relevant, and developing a sense of personal and collective agency to be able to change personal and collective behaviours.

#### Time and resources

Each step represents about a one-hour lesson, although Steps 1 and 3 could benefit from an extra half an hour each to complete. Steps 1 and 4 require internet access for viewing films or simulations (visuals are provided as alternatives in Step 1 – a book is recommended as an alternative to the films in Step 4).



<sup>6</sup> Cordero, E.C., Centeno, D, Todd, A.M. (2020) *The role of climate change education on individual lifetime carbon emissions.* PLOS ONE 15(2): e0206266.

## **Unit Overview**

## Step 1 - Climate change

Learning about the importance of climate change, how climate crises affect people differently and some of the ways to address the causes of climate change.

## Step 2 – Climate justice

Investigating who is responsible for the greatest climate emissions, and how fairness, equity and justice are related to climate change.

# Step 3 – Girls' education and climate change

Exploring how climate-related disasters often amplify existing gender inequalities and how girls' education can benefit all of society in adapting and mitigating for climate change whilst enabling a fairer and more sustainable society.

# Step 4 – Youth empowerment for climate change

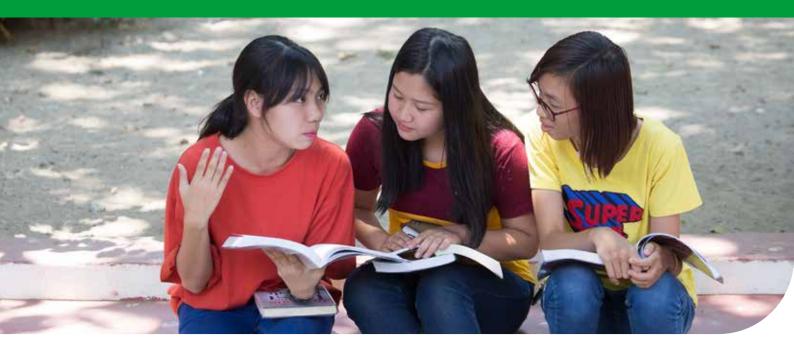
Learning from other youth activists from around the world. Identifying some of the skills involved and relating them to a 'green skills' framework. Exploring joined-up, transformative learning: linking classroom, culture, campus and community.

# Step 5 – Changing behaviours or changing the system?

Considering the relative merits of behavioural change and system change. Thinking about the stages that might be involved in planning for social action.

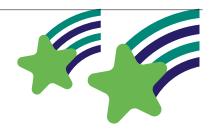
# Step 6 – Role play around local climate change issue

Learning about the possible impacts of coalmining activities on communities, especially in relation to power relations, gender roles and social norms. Developing empathy for different perspectives. Reflecting on the learning in relation to taking action on climate justice issues.



<sup>6</sup> Cordero, E.C., Centeno, D, Todd, A.M. (2020) *The role of climate change education on individual lifetime carbon emissions*. PLOS ONE 15(2): e0206266.

# **Teacher's Planning Template**



Question	Notes	Your thoughts
1. What do you want pupils to learn?	<ul> <li>Read through the materials for the whole unit and consider what is most important for your pupils to learn. Use the learning objectives listed at the start of each lesson to help you do this.</li> <li>What outcomes do you want for your pupils?</li> <li>Consider the core skills developed by each lesson. What are the priorities in your context?</li> <li>Think about how this unit fits with your national curriculum. How do the learning objectives meet the requirements of your national curriculum or guidelines?</li> </ul>	
2. What would be the best way for them to learn this?	<ul> <li>Given the learning objectives you have identified, decide whether you are going to deliver all or a selection of the lessons.</li> <li>Take into account the time and resources you have available.</li> <li>How do you need to tailor the learning activities in each lesson to meet your pupils' needs?</li> <li>Will you use the suggested additional activities?</li> <li>How do the knowledge and skills in this unit link to previous learning?</li> <li>What is the best way for pupils to learn about how gender inequality intersects with climate change in their community, country and internationally, and how this plays out, especially for girls in countries where unequal gender norms prevent girls from going to or completing school?</li> <li>How could this unit be used as an opportunity to develop core skills?</li> <li>What is the best way for pupils to approach working collaboratively?</li> <li>You may want to reflect on gender-sensitive pedagogy practices to ensure that you use varied teaching methodologies and structure group tasks that ensure equal participation of girls and boys in activities.<sup>7</sup></li> </ul>	

Question	Notes	Your thoughts
3. How will you know what they have learned?	<ul> <li>Given the learning objectives you have decided, think about assessment.</li> <li>How will you find out what your pupils already know about climate change, climate science, impacts and solutions before beginning this unit?</li> <li>Consider what sort of evidence you would need to see that pupils have learned the knowledge, skills and attributes you would like them to learn.</li> </ul>	
4. What resources do you need?	<ul> <li>Given the learning activities you are planning, think about the resources you will need.</li> <li>Who could you engage in the unit so that pupils learn more about girls' education and climate change in their own and other contexts?</li> <li>What additional materials would be beneficial to your pupils' learning in this unit?</li> <li>Where do you need to do the activities? Are all the required resources available?</li> </ul>	
5. What did pupils learn during the unit?	<ul> <li>During and after the unit, think about what pupils have learned.</li> <li>To what extent did pupils achieve the learning objectives for each lesson?</li> <li>What other outcomes were achieved? What else did pupils learn?</li> <li>Were pupils confused about anything?</li> <li>Which parts of the unit needed more time or attention than expected?</li> </ul>	
6. What other reflections do you have about the unit?	<ul> <li>During and after the unit, think about what went well and what you could have done differently.</li> <li>Which learning experiences were particularly valuable?</li> <li>Were the learning activities appropriate? What worked well?</li> <li>What would you do differently next time?</li> </ul>	

# Step 1 – Climate change





## Learning objectives

By the end of the session pupils will understand:

- that climate change is certain, widespread and intensifying, and that humans are the main cause
- how climate crises affect people differently
- that there are technical, behavioural and system-wide ways to address the impacts of climate change.

# Part 1: What is climate change and why is it important?

- Ask pupils, in pairs, to discuss briefly what they understand about climate change and to feed back their ideas. Record these on a board. (Ensure that the difference between weather and climate is understood by everyone – see glossary for definitions.)
- Show Slide 4 and the following film clip: <a href="https://www.youtube.com/">https://www.youtube.com/</a>
   <a href="watch?v=e7xW1MfXjLA&t=532s">watch?v=e7xW1MfXjLA&t=532s</a>
   <a href="mailto:Climate Change 2021">Climate Change 2021</a>, The Physical Science Basis, IPCC 6th Assessment Report 2022
   <a href="mailto:British 18">(8 mins 40 secs</a>, without credits).
- Invite the same pairs of pupils to discuss their responses briefly and to identify any questions. Record any questions on the board.
- Ask pupils, as a homework task, to find out the views of older family members about how the climate has changed over the past twenty years or more, using the 'How has the climate changed near you?' chart in Slide 5.

#### Potential collaboration with others

Information collected by pupils as part of this homework task could be shared with partner classes from schools in other areas or countries.

# Part 2: How do climate crises affect people differently?

- Take a glass of water and a piece of paper. Ask pupils what will happen if you pour the water on something. The general reaction will be that the thing will get wet. Now ask them, what will happen if you pour the water on the ground. How will it affect the piece of paper? It will not. However, if the paper is placed on the ground where the water is being poured, then it will get wet and soggy. Explain that this is what 'exposure' is all about – being in a place where the chance of getting in contact with a hazard (or danger) is high.
- Show pupils a piece of cardboard and ask them what will happen if you pour water on both paper and cardboard. The reaction will be that both will get wet; but how much the cardboard will get soggy will depend on the amount of water that is poured – very little water will not damage the cardboard as it could the paper. Explain that this is 'vulnerability' – the level of susceptibility to harm. Vulnerability is also often based on the amount of exposure. [Activity source: ARROW]
- Show Slide 6 to establish the idea that the impact of climate change depends on the level of exposure and the vulnerability of those affected (Risk of harm, Venn diagram) and then visit the Children's Climate Risk Index Interactive Atlas (this may work on some web browsers better than others).

https://experience.arcgis.com/ experience/0d9d2209bf104584a65e012b0 3b6d3f8/?data\_id=dataSource\_2-17b3a7be4c5-layer-1 427%3A217

The first map (also on Slide 7) and table column show the level of risk to children in different parts of the world of the effects of climate change. (The other two maps show the components of this risk index: the second map and table column show severity of exposure, and the third, the level of vulnerability.) Ask pupils if they notice any patterns in the world maps. In which parts of the world are children most at risk? Pupils can also use the interactive map to find out the level of risk in their own country/countries.

 Ask pupils what factors might make some places more vulnerable than others in these countries.

For Exposure (pillar 1), the CCRI index uses factors such as: water scarcity; coastal flood risk; tropical wind exposure; vector borne diseases (for example, malaria and dengue); and soil and water pollution.

For Vulnerability (pillar 2), the CCRI index uses factors such as: child health and nutrition; education; water sanitation and hygiene; and poverty, communication assets and social protection.8

# Part 3: What are some of the ways to address the causes of climate change?

- Ask pupils to suggest possible solutions to climate change. Record these on a board and divide them into three categories:
  - 1 technical solutions (that focus mainly on reducing emissions by technical means)
  - 2 behavioural solutions (that focus mainly on changing behaviours and social and economic systems)
  - 3 system-wide solutions (that focus on changing social and economic systems).

Some solutions may fall into more than one category.

Then show the David Attenborough video 'How to save our planet' (Slide 8)
 <a href="https://www.ourplanet.com/en/">https://www.ourplanet.com/en/</a>
 <a href="https://www.youtube.com/watch?v=0Puv0Pss33M">https://www.youtube.com/watch?v=0Puv0Pss33M</a>
 <a href="https://www.youtube.com/">(© WWF, Netflix and Silverback Films 8 mins 27 secs).</a>

This includes four main solutions:

- Phase out fossil fuels.
- More efficient food production (including eating less meat).
- 3) Manage the oceans.
- 4) Re-wild as much land as possible and encourage nature.

Ask the pupils which of these should go under 'Technical solutions' and which under 'Behavioural solutions' or 'System-wide solutions'.

#### Potential collaboration with others

Pupils' suggested solutions to climate change could be shared with partner classes from schools in other areas or countries.

## **Extension activity**

Introduce the web-based climate change solutions simulator <a href="https://www.climateinteractive.org/">https://www.climateinteractive.org/</a>. (Slide 9) Go to the 'Help' menu and select 'Related Examples' to understand the sliders better (close the box to reveal the sliders again).

Identify solutions suggested in the video and move the appropriate sliders fully to the left (coal, oil, natural gas, bioenergy, deforestation, methane and other) or to the right (renewables and afforestation). Then identify further solutions that pupils may have suggested from the list of sliders, or related examples, and move the sliders to watch the effects on CO<sub>2</sub> emissions. Invite pupils to suggest other sliders to move (or to try moving them for themselves). What do they notice? Which measures seem to have the greatest impact in reducing the temperature increase of 1.5°C? Are they technical, behavioural or system-wide solutions, or a combination?

## Group discussion at the end of Step 1 session

Ask pupils if reducing  $CO_2$  emissions is enough to address climate-related crises. Encourage a discussion that appreciates that technical and behavioural solutions are important to work alongside recognising system-wide solutions that build resilience at a national and local level, especially for those who are most at risk from climate change. This is just to check whether pupils are beginning to appreciate the various ways that emissions, climate exposure and vulnerability can be measured and addressed.

# Step 2 – Climate justice

## Learning objectives

By the end of this session pupils will:

- be able to outline arguments about how the burden of responsibility for addressing climate change should be shared between countries
- have a greater understanding of how any actions to prevent or respond to climate change shouldn't harm or exclude any individuals or groups and instead should help address inequalities that climate change has caused or made worse.

# Introduction to the concept of climate justice

- Introduce the concept of climate justice. Ask pupils what they think 'climate justice' means? Have the definition (on Slide 10) ready to share:
  - 'Climate justice links human rights and development to achieve a human-centred approach, safeguarding the rights of the most vulnerable people and sharing the burdens and benefits of climate change and its impacts equitably and fairly.'9
  - A key part of climate justice is recognising that climate change impacts women and men differently. In contexts where there are significant gender inequalities and high levels of poverty, women and girls bear a greater burden of climate crises (Slide 10).
- This session will look at who is responsible for emissions, and how countries can share this burden through engaging with the principles

- enshrined in the Paris Agreement that respect the need for fairness, equity and justice.
- Ask pupils, working in pairs or in small groups, to discuss the question 'Which countries are most responsible for climate change?' You could provide a list of countries and continents to rank, for example:
  - China, India, Ethiopia, Saudi Arabia, Vietnam, Europe, South Africa, USA, Brazil, Australia, Russian Federation, Iran, Greenland, Qatar, Japan, Mali.
- Give out the Step 2 activity sheet and ask pupils to read through the arguments and look at the slides of the graphs (on Slides 11 to 16). For each argument they should decide whether they agree, disagree, or are unsure, and record their answers. It is important that they look through their answers again at the end and adjust them if they have changed their minds about any of their responses. Finally, they should read the interpretations at the bottom of the activity sheet.

## Part 1: Who is responsible for climate change?

## **Activity sheet**

- Read through the arguments 1 to 8 below and look at Slides 12 to 16.
- Decide your position on the agree/disagree line for each argument and record your answer.
- Look through your answers again at the end and adjust them if you need to.
- Check your answers and read the interpretation.



- China emits nearly 30 per cent of the world's CO<sub>2</sub> emissions. This is much more than any other country. They have the greatest responsibility to tackle climate change and its effects. (Graph A, Slide 12)
- The oil-producing country, Qatar, produces the highest level of CO<sub>2</sub> per person. They have the greatest responsibility to tackle climate change and its effects. (Graph B, Slide 13)
- 3. Climate change is largely caused by a history of CO<sub>2</sub> emissions over hundreds of years. CO<sub>2</sub> stays in the atmosphere for a very long time. The USA and Europe emitted by far the most CO<sub>2</sub> since 1751 (the beginning of the industrial revolution). They have the greatest responsibility to tackle climate change and its effects. (Graph C, Slide 14)
- 4. People living in the USA and Europe two hundred years ago did not know that what they were doing would cause climate change, and anyway they are dead now. Their descendants do not have the greatest responsibility to tackle climate change and its effects.
- 5. The descendants of the people from the countries that emitted by far the most CO<sub>2</sub> through history have benefitted from high standards of living, made possible through the burning of fossil fuels over

- hundreds of years. They have the greatest responsibility to tackle climate change and its effects. (Graph D, Slide 15)
- 6. The costs of tackling climate change and the loss and damages it causes across the world is too expensive for the USA, Europe, and a few other most responsible countries, to pay for.
- 7. The world's poorest 50 per cent of people are responsible for around 10 per cent of emissions but bear the greatest burden when it comes to the impacts of climate change. The majority of these people live in the Global South. Therefore, Global South countries should receive financial and technical support from richer countries when it comes to climate mitigation and adaptation activities. (Graph E, Slide 16)
- 8. The majority of the world's girls most likely to experience negative impacts to their education and health live in climate-vulnerable countries in the Global South. These girls' educational outcomes are already at risk due to harmful gender norms (for example, early and forced child marriage) and gender inequalities that result in poverty continuing from one generation to the next. Countries where girls' education is most at risk from climate impacts should be supported to improve educational equity and equality.

## Check your answers.

If you agree with arguments 1, 2, 4 and 6 and disagree with 3, 5, 7 and 8, you are likely to be aligned with Global North negotiators (for example, USA and Europe).

If you agree with arguments 3, 5, 7 and 8 and disagree with: 1, 2, 4 and 6, you are likely to be aligned with Global South negotiators (for example. nations of South Asia or Africa) though some may also agree with argument 1.

These differing positions are a key obstacle that is preventing countries of the world from agreeing on stronger action to tackle climate change and its effects. For example, negotiators from many countries of the Global South say they cannot move away from CO<sub>2</sub>-emitting fossil fuels to renewable energy and protect the environment unless they have the financial support to do so. Governments from many countries of the Global North are reluctant to pay the amounts that are needed. Negotiators from many countries of the Global South also say that they are least responsible for climate change but are suffering the worst effects from it. What do you think should happen?

Climate change negotiations happen between countries but the richest 10 per cent of the world's people emit almost half of the total CO<sub>2</sub> emissions relating to lifestyles. (Graph E, Slide 16) Should this be taken into account?

# Part 2: How are fairness, equity and justice related to climate change?

To address these issues of climate injustice, 197 countries gathered in 2015 to develop the Paris Agreement, which has three main goals:

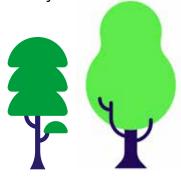
- for countries to reduce their greenhouse gas emissions
- to stop average global temperatures from rising 1.5 degrees Celsius by 2050
- 3. to help people and the planet better manage the effects of climate change.<sup>10</sup>

The Paris Agreement tells country leaders to include young people in climate decision making, and to make sure that actions taken are fair and equitable. This means that any actions to prevent or respond to climate change shouldn't harm or exclude any individuals or groups and instead should help address inequalities that climate change has caused or made worse.

# Introduction to concepts of inequality, fairness, equity, liberation (justice)

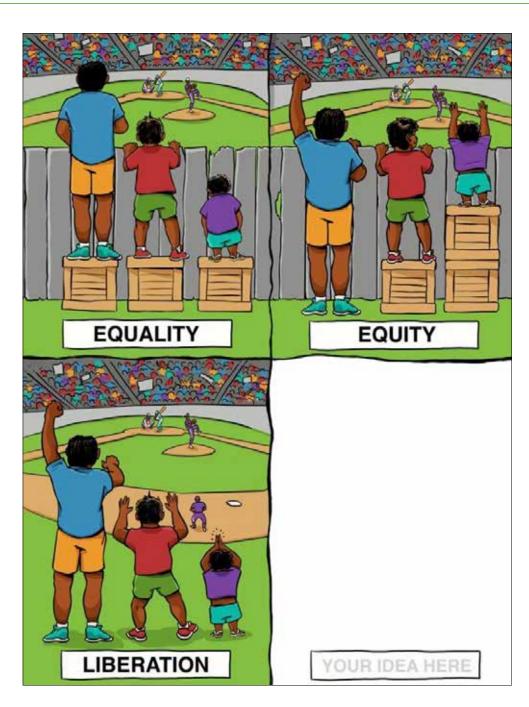
Show pupils the illustration below (and on Slide 17) and explain the definitions:

- Equality (or fairness) means treating everyone the same – illustrated with each person having one block to stand on.
- Equity means giving each person the specific support they need – illustrated by giving an extra block to the shortest person.
- Liberation (or justice) means removing the barriers that stop people from accessing the things they need in life – illustrated by removing the wall entirely.



To consolidate understanding, you could ask pupils to say which of the following statements should go with which illustration.

- All children are entitled to free education.
- Educational support is provided in the home language of those children who do not speak the main national language.
- The government provides sufficient money and support so that girls and boys from vulnerable families are able to access goodquality education.



Interaction Institute for Social Change | Artist: Angus Maguire.

# Step 3 – Girls' education and climate change

## Learning objectives

By the end of this session pupils will:

- understand how climate-related disasters often amplify existing gender inequalities, particularly in poorer settings
- be able to discuss how girls' education benefits all of society in adapting and mitigating for climate change and enabling a fairer and more sustainable society.

# Part 1: Introduction to gender inequalities and gendered impacts of disasters

- Explain to pupils that we are going to look at gender inequality. What do we mean by this phrase?
- Look at the gender scenarios on Slide 18.
   What do they think will happen and why?

#### **Suggestions:**

A – Less equal: Boys' education is seen as a greater asset in some families. They are expected to get a job to support the family and their own household when they get married. Investing in a girl's education is seen as a poorer investment as she is likely to have greater domestic responsibilities, so has less time to carry out paid work. She is also likely to marry in her teenage years, so her own family wouldn't benefit from any income she might make from working. In settings with these attitudes to gender roles, families with limited resources often prioritise boys' education while girls have to stay at home to help with domestic work and childcare.

A – More equal: The parents would recognise that all their children had an equal right to education, and the boy and his father would help out with childcare and domestic work. Her ability at maths may lead to a well-paid job.

- **B Less equal:** The local council is very male dominated and they do not think young women have much technical ability. The girls are excluded from local decision-making forums due to their age and gender.
- **B More equal:** The local council recognises the need to engage all sectors of the community and that it is useful to have young people sharing ideas about making adaptations for climate change. They respect the technical knowledge of these young women and their organisational abilities.
- Look at Slide 19. How does this help to explain gender inequality? Social norms (accepted behaviours among groups of people) may reflect, allow or lead to imbalances of power relations between boys and girls (where children's rights, like the right to education, are not accessed equally). Social norms may also support stereotypical gender roles (like childcare) that reinforce power imbalances and result in gender inequality unless such norms are revealed and challenged.
- How might these factors in gender inequality affect the scenarios? How would they play out in a less equal and more equal society?
- Imagine a disaster has occurred in a context with high levels of poverty and very traditional gender roles. (The teacher may want to use an example from your country.) You may want to encourage some examples from the class to illustrate what 'traditional gender roles' are

- to make sure pupils all understand what these might be in the context they are imagining.
- Explain that in times of crises these roles often get more pronounced as communities revert to traditions and practices used by earlier generations. For example, women may have started to own businesses and girls have started to go to university, but in emergencies they often revert to traditional gender
- roles where women and girls look after the household and have caring responsibilities.
- Look at the Step 3 activity sheet (Slide 20).
   These are some issues that can happen as a result of disasters and crises.
- Ask pupils, in groups, to decide whether the issues most often impact boys or girls, or both, and to explain why.

## Step 3: Issues resulting from disasters and crises

# Activity sheet

Issue	Who is most affected? Boys/Girls/ Both	Explain why?
Malnutrition due to a family's loss of food crops or income to spend on food		
Illness from infectious diseases due to unhygienic conditions and lack of safe drinking water		
Increased domestic and care work for older family members or siblings		
Being taken out of school due to lack of funds		
Increased pressure to help earn an income to support the family		
Being married at an early age to reduce draw on family resources and have access to dowry		

Issue	Who is most affected? Boys/Girls/ Both	Explain why?
Migration to another country, living in temporary or insecure shelter		
Increased exposure to sexual harassment or gender-based violence in insecure housing or refugee camps		
Lack of police or services to report incidents of sexual violence		
Parental stress, anxiety and mental-health problems		
Having to travel further to get fuel or water as sources have been destroyed or contaminated by the disaster		

 Go through pupils' answers with them and compare their explanations. What have they learned? If many societies are already experiencing issues of gender inequality, what effect do disasters and crises have?

#### Potential collaboration with others

Pupils' responses to this activity could be shared with partner classes from schools in other areas or countries and the similarities and differences explored.



# Part 2: Girls' education and climate change

- Explain that we are now going to look at girls' education and climate change. Ask pupils how they think that the two issues might be linked. Why would girls' education be a climate justice issue?
- Teachers could prompt how they could be linked in a negative and positive way.

#### **Negative impacts include:**

- Girls in vulnerable households are more likely to leave school to get married in times of weather-related crises to help ease the burden of scarce household resources.
- Families often withdraw girls from school or send them to school less frequently during times of drought because gender norms dictate that fetching water falls to girls and women.
- Drought can make girls more likely to miss school when having their periods due to the lack of water to maintain menstrual hygiene.
- Climate-related events can lead to school closures or increased migration, which disproportionately affect girls.
- In the event of weather-related school closures, girls are less likely than boys to attend temporary school facilities because of families' fears that their daughters could be harassed or experience violence on their journey to or from the temporary facility.
- Changes in climate can alter the range and reach of diseases that humans are exposed to (for example, the Covid-19 pandemic), resulting in reduced school attendance and increased dropout rates for girls.

#### Positive impacts include:

 When girls go to school, they learn the skills to anticipate and overcome climate-related shocks, like the critical thinking capabilities needed to process and act on weather reports.

- Education also increases climate resilience and adaptive capacity.
- Educated young women are more likely to engage in collective action and systems change toward sustainability.
- Countries that have invested in girls' education have suffered far fewer deaths from droughts and floods than countries with lower levels of girls' education.
- Girls' education, particularly secondary education, has been identified as the most important socioeconomic determinant to reduce vulnerability to the impacts of weather-related disasters and extreme weather.<sup>11</sup>
- In order to adapt to climate change, communities need to become more resilient. You can use this activity to demonstrate resilience. Take a pin, a balloon and a sponge ball. Ask pupils what will happen when you prick both the sponge ball and balloon with the pin. The sponge ball absorbs the shock of the pin while the balloon bursts. Explain that if pricking was considered a 'disaster', then 'resilience' is our capacity to absorb the shock. So, while the balloon could not survive the disaster, the sponge ball could absorb the shock and, thus, is more resilient. This is what we aim to achieve through resilience building - to increase the ability to bounce back. You could also use a slinky (bouncing spring coil) to explain the concept of bouncing back, or returning back to your original position.<sup>12</sup>
- Look at Slide 21 about girls' education.
   Discuss how these choices are not all within girls' control, so discussions about addressing gender inequalities need to be had across all levels of society with families, teachers, community leaders and politicians.
- Look at the information on gender inequality and climate change on Slide 22. For each of these statements, ask pupils to come up with reasons why this is the case. Pupils may want to refer back to Slide 17. Is this fair, is it equitable and is it just? What can be done about it?

#### Suggestions for debriefing the statements:

- A: Most governments around the world are still male dominated. Organisers of such events need to ensure equal representation and that all delegates get equal time to speak. See the 'She changes climate' campaign for 50 per cent of climate crisis leadership to be women.
- **B:** Since people's vulnerability to risks depends, to a large extent, on the assets and resources they have available, girls' and women's limited access to assets makes them more vulnerable to natural disaster. Increasing gender equality and access to education and economic opportunities is essential to building community resilience in the face of climate change.<sup>13</sup>
- C: Many societies still do not value girls equally to boys. They need to recognise the benefits for all the community of girls being able to complete their education and make their own life choices.
- **D:** Technical and engineering jobs, which are expected to see the most growth, are still very male-dominated. Women need to be encouraged to engage with green technology and to become entrepreneurs.

Look at Slide 23 Women's leadership and climate change, Slide 24 Exploiting people and planet, and Slide 25 Key areas for girls' education.<sup>14</sup> You may also ask them to look back at Slides 21 and 22. Ask pupils to come up with five reasons why girls' education is important to combat climate change. Ask them to be prepared to give reasons.

#### **Teacher briefing: Ideas from research**

- The values and beliefs that justify the exploitation and abuse of girls and women are rooted in the same values and beliefs that justify the exploitation and abuse of the environment and the non-human world: mainly, exclusion and domination.
- By transforming the purpose of education to create more gender-equitable societies – and by actively teaching gender equality and principles of equity, justice and fairness – we can simultaneously address the underlying values, ethics, structures and relations of power to create socially, economically and environmentally sustainable societies.<sup>15</sup>

#### Potential collaboration with others

Pupils' responses to the Step 3 Part 2 learning activity could be shared and discussed with partner classes from schools in other areas or countries.



<sup>13</sup> Gender-Responsive Pedagogy: a toolkit for teachers and schools 2nd edition (2018). Forum for African Women Educationalists (FAWE), <a href="https://www.unicef.org/esa/media/6726/file/GRP-A-Toolkit-for-Teachers-and-Schools-2020.pdf">https://www.unicef.org/esa/media/6726/file/GRP-A-Toolkit-for-Teachers-and-Schools-2020.pdf</a> (page 104)

<sup>&</sup>lt;sup>14</sup> Adapted from 'Three platforms for girls' education in climate strategies' Christina Kwauk and Amanda Braga, Brookings Institute 2017 3 platforms for girls' education in climate strategies (brookings.edu)

<sup>&</sup>lt;sup>15</sup> A New Green Learning Agenda (2021) Christina Kwauk & Olivia Casey, Brookings Institution, https://www.brookings.edu/research/a-new-green-learning-agenda-approaches-to-quality-education-for-climate-action/

# **Step 4 – Youth empowerment for climate change**

## Learning objectives

By the end of this session pupils will have:

- encountered the stories of a range of youth activists from around the world
- identified some of the skills involved and related these to the green skills framework
- a greater understanding of their circles of influence and what enablers and barriers might help or hinder them.

As future leaders, young people have a key role in engaging with the climate change debate. There are many initiatives mobilising and generating tools to support young people to be involved with climate action including YOUNGO – the Children and Youth constituency to the United Nations Framework Convention on Climate Change, Major Group for Children and Youth Asia Pacific, UNICEF and Plan International. Teachers could add examples of youth activism in the country where this pack is being used.

The following sessions will help pupils identify opportunities to engage with actions in their school and community.

# Part 1: Green skills framework and youth activism for change

#### Learning from others

 Show some youth activist videos from the list below (also see Slide 26) or order: We Have a Dream by Mya-Rose Craig. Magic Cat 2021 ISBN 978-1-913520-20-5 www.birdgirluk.com/shop Mitzi Jonelle Tan, Youth Activists for Climate Action Philippines <a href="https://www.youtube.com/">https://www.youtube.com/</a> watch?v=AyyUPr0plg8

Oli, campaigning against forced marriages in Bangladesh <a href="https://www.youtube.com/">https://www.youtube.com/</a>

watch?v=yvMQ90sCOGg

Gauri Shukla, Students of Singapore against Haze

https://www.connect4climate.org/event/innovate4climate-2019-digital-media-zone (Day 2: June 5 – start one minute into the video)

Elizabeth Wathuti, Green Generation Initiative, Kenya

https://www.youtube.com/watch?v=N1iKg2Ug3Zk&t=45s

Helena Gualinga, indigenous activist, Sarayaku community, Ecuador <a href="https://www.youtube.com/">https://www.youtube.com/</a> watch?v=a04JPKheFpw

Malala Yousafzai, Education activist and Nobel Peace Prize winner, Pakistan <a href="https://www.youtube.com/">https://www.youtube.com/</a> watch?v=NlqOhxQO-H8

- Ask pupils to discuss and write down what they think:
  - is the issue that the activist most cares about
  - are the approaches that the activist is taking to bring about change
  - o are the skills that they are using to do this.
- To help answer the third point, ask pupils to first come up with their own ideas and then find out whether any of these fit under the green skills framework below (and Slide 27). These include the British Council's 'core' or 'transitional' skills: critical thinking

and problem solving; collaboration and communication; creativity and imagination; citizenship; digital literacy; student leadership and personal development. This green skills framework can be seen as a continuum, from the technical end of the spectrum under 'skills for green jobs' to the more sociological angle of 'skills for green transformation', which highlight capacities needed to disrupt and transform the individual or structural factors involved in the climate crisis. Capacities in the 'green life skills' can serve both technical and transformative approaches.

#### A Green Skills Framework

#### Skills for **Green Jobs**

Skills aimed at fulfilling the requirements of green jobs and supporting the transition to a low-carbon green

#### **SPECIFIC CAPACITIES**

Business skills Data analysis Engineering Entrepreneurship Environmental and ecosystem management Environmental knowledge and awareness Finance skills ICT skills Innovation skills Marketing skills Project management Research skills

Science skills Technological skills (Gender empowerment skills)

Sales skills

#### **Green Life Skills**

Cross-cutting skills that serve both technical, instrumental, and adaptive, transformative ends

#### **GENERIC CAPACITIES**

Adaptability

Collaboration Collaborative thinking

Communication

Coping with emotions Coping with uncertainty

Creativity

Critical thinking and reasoning

Decisionmaking Empathy

Flexibility Growth mindset

Higher order thinking skills

Interpersonal competence

Leadership Negotiation

Networking

Open-mindedness

Participatory skills Problem-solving

Resilience

Strategic thinking

Teamwork

#### Skills for a Green Transformation

Adaptive skills aimed at transforming unjust social and economic structures

#### TRANSFORMATIVE CAPACITIES

Ability to analyze unequal systems of power

Coalition building Collective action

Disruptive vs. normative thinking

Environmental stewardship

Future and anticipatory thinking

Integrative thinking

Interdisciplinary and multidisciplinary thinking

Interrelational thinking

Political agency, activism

Reflexivity

Respecting diverse viewpoints

Solidarity

Systems Thinking

Trans-cultural, trans-spatial, trans-temporal mindsets

Valuing traditional and indigenous knowledge

Working within complexity

#### INSTRUMENTAL

#### **TRANSFORMATIVE**

https://www.brookings.edu/research/a-new-green-learning-agenda-approaches-toquality-education-for-climate-action/

### Part 2: Circles of influence

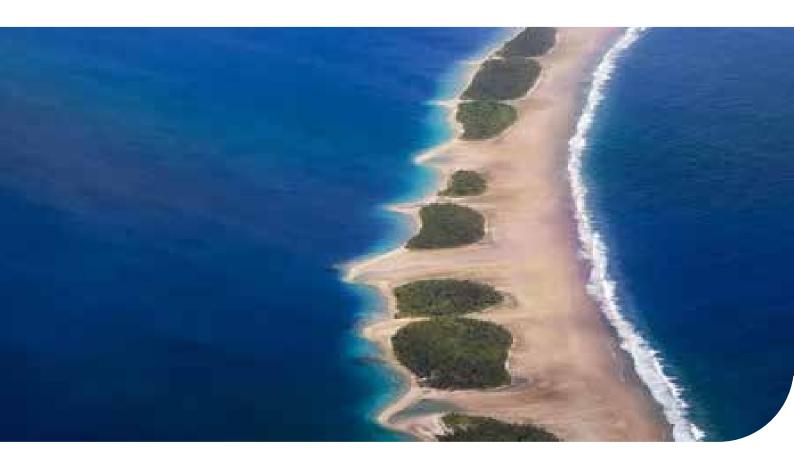
- Show pupils Slide 28. Explain that in this diagram 'Your classroom' is about teaching and learning about sustainability; 'Values' is the ethos of the school and how we can change attitudes and behaviours; 'Your school' is how the school buildings and grounds are managed in a sustainable/climate and equality-friendly way; 'Your community' is about learning with the school and wider community.
- How might you help develop climate solutions and climate justice in your circles of influence, based on what you have learned so far about the connections between gender inequality, poverty and climate change? Divide pupils into four groups to look at one each of the concepts from the diagram. You could give them prompts from some of the ideas below.
- Scenario: One girl and one boy are interested in setting up a (non-stereotypical) club. The girl wants to set up an environmental STEM club to build local environment solutions for the school; such as setting up a rainwater harvesting system, or making models to demonstrate how to generate green power from solar panels or windmills. (Ask pupils to select a locally relevant idea to help them imagine this scenario.) The boy wants to set up a gardening club that grows and delivers produce from the school garden to donate to elderly or sick people in the neighbourhood.
- Ask pupils to explore what the barriers might be in each of the four areas, then switch to the enablers in each of these areas that can support these two pupils to realise their aspirations.

Girls' STEM club	Barriers	Enablers
Your classroom	Girls seeing STEM subjects as too hard/boys' subjects.	Teachers encouraging all pupils to do their best at STEM subjects.
Your school	No space/time given for girls' STEM club.	A female teacher to support the club. Finding time and space to make the club welcoming for everyone.
Your community	Lack of female STEM role models. Parents not supportive of girls doing extra-curricular clubs.	Inviting a local female STEM role model to support the club and share her story.
Values	Girls being seen as unable to engage with technical science subjects, lack of subject gender equality.	Bringing in a school gender- equality policy. Relevant staff training to ensure teachers don't have gender biases in what subjects they encourage boys and girls to engage with.

Boys' gardening club	Barriers	Enablers
Your classroom	Gardening is not a subject on the curriculum.	Linking gardening to relevant areas of the science curriculum.
Your school	Teachers lacking gardening expertise.	Finding support from local gardening clubs.
Your community	Gardening and community support is not seen as a male activity.	Finding a male role model to support the club who is already engaged in community support.
Values	The school leadership thinks that only academic subjects matter, and boys aren't seen in caring roles supporting vulnerable people.	Getting the leadership to see the value of encouraging boys to create community support for vulnerable people and practical life skills.

#### **Summary discussion**

Ask pupils how gender roles, social norms and power relations are related to the idea of values. How are the values that drive gender inequality linked to/connected with the values that drive environmental exploitation and destruction? Connect this to the language used in Step 2 on climate justice, fairness and equality.



# Step 5 – Changing behaviours or changing the system?

## Learning objectives

By the end of this session pupils will have:

- reached a more informed position about the relative merits of behaviour change and system change
- a greater understanding of useful stages that might be involved in planning for social action.

#### What will have the biggest impact on climate change?

- Hand out the activity sheet on the next page and ask pupils, working in pairs, to complete the activity. The statements can be added to with pupils' own ideas, then cut out and physically moved into different columns on the table (Slide 29), or the table can be copied and the letters of the statements (a to j+) can be written into the columns in pencil. When this has been done, the statements should be sorted in order of priority, within each column. Pupils may be prompted to come up with further ideas.
- Pairs of pupils can share their top statements in each column and highlight any that caused discussion. Have any pupils changed their minds as a result of this activity?
- Ask pupils to discuss and vote on whether they think it is better to change individual behaviours (like changing one's lifestyle choices) or to campaign for system changes in relation to climate change. If there is space, perhaps outside, they can vote with their feet and stand in one place for behaviour changes and in another, nearby, for system changes and then try to convince each other to move.







## Step 5: Changing behaviours or changing the system?

## **Activity sheet**

#### Sort and prioritise these statements under each heading:

- a) reduce food waste
- b) reduce single-use plastics
- c) change light bulbs to LED
- d) improve public transportation
- e) subsidise renewable energy
- f) plant trees

- g) become vegan
- h) raise awareness about inequality
- i) re-wild land and sea areas
- j) support girls' completion of secondary education.

#### Add your own ideas...

Behaviour change	Both	System change

#### Making plans

If pupils wish to take action themselves, encourage them to consider these steps:

- visioning
- choosing a change they want to make
- reasons for choosing the change
- researching the issue
- considering what is needed for the change to happen (for example, to improve air quality, we would need fewer petrol/diesel vehicles)
- asking who has the power to make that change happen – who are they trying to influence?

- generating creative non-violent actions
- evaluating the actions
- choosing an action and plan
- carrying out the action
- evaluating and celebrating.

This structure is based on the 'Taking action' section of the *DECSY Non-Violent Action: A Force for Change*, Lesson Plans <a href="https://www.decsy.org.uk/projects/non-violent-action-a-force-for-change-lesson-plans/">https://www.decsy.org.uk/projects/non-violent-action-a-force-for-change-lesson-plans/</a>

#### Potential collaboration with others

Pupils' proposed campaigns could be shared with partner classes from schools in other areas or countries.



# Step 6 – Role play around local climate change issue

## Learning objectives

By the end of this session pupils will:

- have developed an understanding of the impacts of coal-mining activities on communities, especially with regard to issues of power relations, gender roles and social norms
- have developed empathy and understanding for different gender perspectives
- be able to use their learning to consider taking action on climate justice issues.

#### Version A (simple scenario)

- Ask pupils to look at the simplified role-play scenario below (also Slide 30).
  - There is a proposal to build a large coal mine in a rural area dependent on agriculture, although this local industry has recently been badly affected by extreme weather conditions. In this area, gender roles are traditional, with women as homemakers and men as main wage earners and decision-makers. The quality of education is poor; most girls leave school at 13 or 14, unable to read or do basic maths.
- What may some of the impacts of the proposal be on the local population, especially with regard to gender inequality and climate change? Suggested responses:
- Increase in carbon emissions and air pollution.
  - This will increase the burden on women and girls, if they have to care for more sick people.
- It will create a lot of jobs in an area that has high unemployment and local poverty.
  - Most of the jobs are likely to go to men.
- It will help to provide cheap and reliable energy.
  - This may save women time; for example in looking for firewood/finding fuel.

- The local secondary school will have to relocate to the next town.
  - Parents may not want girls to travel long distances so they may miss out on secondary education. This level of education is key for girls' engagement with climate change.
- The primary school is located so close to the mine that there will be a lot of noise and air pollution.
  - Increase in respiratory illnesses, so adding to the caring burdens of women and girls.
- The mine will recruit many of the local men and boys, who will therefore not be available to work on their farms.
  - Women and girls will have to do most of the agricultural labour, and boys may miss out on secondary education in favour of low-paid work in the mine.
- Pollution and nature loss will lead to less food being grown.
  - More money will have to be spent on food, maybe with less nutritional value, and feeding women and girls may come second to feeding men and boys.

- The local water supply may become polluted, so fresh water would need to be fetched from further away.
  - Increased illness due to less fresh water.
     Increased stress, mainly on women and girls, in having to fetch/source fresh water.
- A high number of male workers will move in from other towns.
  - Likely to be single men and may lead to increase in sexual violence and harassment.
- The opposition to the mine is being led by a local group 'Mothers for the Future'.
  - May lead to more women being empowered to stand up for their community and challenge male-dominated decision-making, but may also cause community and domestic tensions.

#### Scenario in more detail (for teachers)

The local population depend on local agriculture as a means of small trade and subsistence for the household. This is a rural population with no other big industry in the area. Recent extreme weather conditions have highlighted how dependent they are on agriculture as these droughts led to food shortages and increased levels of poverty. Gender roles are traditional, with women as homemakers and men being the main wage earners and decision-makers in the household.

There is a primary school and a secondary school in the area, so most girls stay in secondary school until 13 or 14 with boys staying longer, although the quality of education is poor. Many girls leave school without being able to read or do basic maths.

A multinational company proposes to build a large coal mine on an area of green space in a rural area that contains a lot of biodiversity. It will create a lot of jobs in an area with high unemployment and local poverty. The mine will help to provide cheap and reliable energy.

The mine will mean that the local secondary school will have to move to the next town (which means that families will not want girls travelling such a distance). The primary school will remain but is located so close to the mine that noise and

air pollution will be intense (leading to increased illness and respiratory issues). The mine is likely to recruit many of the teachers from the school as administrators as they are the most educated in the area. The mine is also likely to recruit many of the local men and boys, who will then not be available for existing agricultural livelihoods, increasing women and girls' burdens and compromising both boys' and girls' education.

Reduced biodiversity will have an impact on agriculture and farming practices, damaging livelihoods and nutrition. The mine will divert the local water source and could pollute local wells with run-off from the plant. Girls will then need to fetch water from further away. It may also lead to an increase in illness, resulting in higher care burdens and less time for girls to complete their studies. A high number of male workers will move in from other towns (which will most likely increase the risk of sexual violence and harassment). The opposition to the mine is being led by a local group 'Mothers for the Future'.

The government has set up an enquiry that will be presided over by a judge and has agreed that the decision over whether or not to allow the mine will be influenced by a Citizens' Panel representing different interests and the local population.

 There are two versions of this role play: Version A (shorter, simplified) and Version B (longer, more complex).

#### **Version A roles**

- 1 judge
- 6 witnesses
- Rest of class/group Citizens' Panel members.

#### **Version B roles**

- 1 judge
- 1 or 2 (or groups of) Panel conveners
- 12 witnesses (additional 4 optional)
- 12 Citizens' Panel members.

- You could add to or replace roles according to your local context. You may decide to give everyone roles and then ask them to step out of role to vote on the issue according to the arguments they have heard. A teacher may decide to take the role of the judge and/ or have other adults or senior pupils take on demanding roles. You can ask different genders to play a role of another gender to help encourage pupils to think from different perspectives, and to consider different experiences of climate change based on different intersecting identities. (For Version B you can omit some of the roles according to the size of the class, or reduce the size of the jury.)
- The activity could be run as an off-timetable day with the research (into both their roles and the topic of coal mining) being done in the morning by the different groups and a formal debate in the assembly hall in the afternoon, followed by a debriefing.
- Representatives of wider communities of interest could be invited to work with certain roles.

#### **Useful websites**

- SDG Resources for Educators Affordable and Clean Energy (UNESCO) <a href="https://en.unesco.org/themes/education/sdgs/material/07">https://en.unesco.org/themes/education/sdgs/material/07</a>
- Top Resources (Transform our World)
   <u>Transform Our World: Top Resources</u> (transform-our-world.org)
- Health and environmental impact of the coal industry (Wikipedia)
   <a href="https://en.wikipedia.org/wiki/Health\_and\_environmental\_impact\_of\_the\_coal\_industry">https://en.wikipedia.org/wiki/Health\_and\_environmental\_impact\_of\_the\_coal\_industry</a>
- Impact of Coal Mining on Environment (European Researcher 2015)
   <a href="https://www.researchgate.net/">https://www.researchgate.net/</a>
   <a href="publication/274195418\_Impact\_of\_Coal\_Mining\_on\_Environment">https://www.researchgate.net/</a>
   <a href="publication/274195418\_Impact\_of\_Coal\_Mining\_on\_Environment">https://www.researchgate.net/</a>
   <a href="publication/274195418\_Impact\_of\_Coal\_Mining\_on\_Environment">https://www.researchgate.net/</a>
   <a href="publication/274195418\_Impact\_of\_Coal\_Mining\_on\_Environment">https://www.researchgate.net/</a>
   <a href="publication/274195418\_Impact\_of\_Coal\_Mining\_on\_Environment">https://www.researchgate.net/</a>
- Clean Coal Technologies (World Coal Association)
   <a href="https://www.worldcoal.org/clean-coal-technologies/">https://www.worldcoal.org/clean-coal-technologies/</a>

- Plan International 5 ways climate change is disrupting girls' lives <a href="https://plan-international.org/">https://plan-international.org/</a> <a href="mailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:emailto:email
- Plan International Climate Change, Young Women, and Girls: Vulnerability, impacts and adaptation in Northern Thailand <a href="https://plan-international.org/publication/climate-change-girls-thailand">https://plan-international.org/publication/climate-change-girls-thailand</a>

## Part 1: Researching the roles

- This activity could be done with a whole year group. Each class would have the scenario and the process explained. You can then give out the role cards to pupils in groups to research them and develop arguments. (Roles could be divided up between classes.) Pupils need to think about the arguments they will use and which other roles they might ally with.
- One pupil could be chosen by the group to act the role in the enquiry with the others acting as their support team. Those who do not have witness roles can do general research on coal and other forms of energy, to understand their impact on vulnerable members of the community and their links to climate change.

#### For Version B

- Teachers or classes should choose the Citizens' Panel members; they may be told individually they come from certain age groups, regions of the country ethnic/ cultural/faith/women's groups.
- The Forum Conveners need to decide how the forum will run. If there is time, each witness can be asked to make their case for or against the coal mine. There may be debate among witnesses and questions from the floor, or from the judge.

## Part 2: The enquiry

The Citizens' Panel and the judge can ask questions of each witness. There will then be an open forum when anyone present can ask questions or debate with other witnesses. The Citizens' Panel will then vote (either immediately on an individual basis or after a recess and panel discussion) on whether or not the coal mine should go ahead.

#### **Optional activity**

- Ask the pupils to keep a learning diary. Ask them to:
  - write out what they feel about the topic and their role at the beginning
  - reflect on how gender roles may constrain or enable certain types of action and how barriers can be overcome, how power relations may influence certain outcomes, and what connections may have surprised them in their research
  - make notes on how their ideas change as they find out more
  - make notes of key points in the enquiry discussions/debate
  - reflect on what has affected their views during the process and what it means for them in terms of informed action – should I do something, if so what and why?
  - state what skills they have learned.
- They could also peer review how well they contributed to group work.

#### Suggestions for adapting learning

- You can make the role play easier by going through the roles (even reducing the number) with the pupils in class. Help them to understand the issues from the point of view of this character.
- You could make the role play harder by having the pupils take on and research all the key roles, including the setting up and running of the forum.

Instead of an enquiry, you could debate a motion such as: 'The government should make secondary education universal, including education about climate change and climate justice, by 2030.' Depending on your local/country context, there may be issues and challenges around ensuring universal secondary education (funding/access/gender equality/training teachers). There may be issues in many countries around ensuring meaningful education about climate change and climate justice (ensuring cross-curricular engagement/action learning/gender equality/ training of teachers). You could also devise a prompt sheet for how to set out your argument and debate it.

# Part 3: Plenary, including questions for reflection and enquiry

After the role play, a teacher will need to lead a debriefing session to ask what everyone thought of the role play, what has been learned and what can/should be done about any of the issues raised. Does it relate to anything any of the participants want to take action on, especially in relation to climate justice topics? If so, how? They could investigate joining an existing campaign, writing to politicians, inviting real witnesses in for a debate, writing articles for school, local or national papers, or developing a presentation or exhibition. These ideas could be explored in follow-up lessons. You can refer back to Step 5.

#### Potential collaboration with others

There is an opportunity to engage in international partnerships.

You could get your partner school to do this role play and get pupils to compare learning diaries. They could also discuss what further action they might want to take in relation to climate justice topics.



# Role play cards

**Version A: Roles** 



## A: Judge

Your role is to ensure that everyone gets a fair hearing and to sum up for the Citizens' Panel what the key arguments are before they make their vote.

## **B: Citizens' Panel members**

Your role is to listen to the arguments put forward by the witnesses and to make a note of issues you wish to ask them about further. You will need to make up your mind on the basis of the arguments put forward.

#### **Version A: Witnesses**

# C: Government energy minister (male)

Although you know there may be some pollution, the mine will employ lots of people and provide cheap, reliable energy, which you believe will give you popular support.

# D: Young activist (male)

You have been inspired by young climate activists around the world. You are from a fairly wealthy local family and think opposing the mine will make you famous on social media.

## E: Co-ordinator of 'Mothers for the Future' (female)

You believe the damage to the planet is due to the same male-dominated attitudes that exploit women and those with less power. You know powerful people may oppose you, but you believe you can get enough support to protect the environment and find more sustainable jobs for local people.

# F: Local doctor (female)

You are worried that the mine will lead to more ill health, especially among children. You also think it will make women's and girls' lives worse and may increase gender-based violence.

# G: Local headteacher (female)



You think it is a good idea that there will be more jobs for people in a poor area, but you worry that teachers will be taken away to work in the mine offices and more children will lose out on education, particularly girls as they already drop out early. Girls are missing out on the vital skills they need to engage with the political and environmental issues in the area.

## H: Local person (male)

You have no job and a family to look after. The mine will give you work to support your family and send your children to school.

#### **Version B: Roles**

## A: Judge

Although the decision of the panel will carry no legal weight, it will make the debate more public. Your role is to ensure that everyone gets a fair hearing and to sum up for the Citizens' Panel what the key arguments are before they make their vote.

#### **B: Forum conveners**

You are a member of a social enterprise that aims to increase public participation in politics. You have been contracted by the government to organise this forum. You have to ensure that the Citizens' Panel represents the different people interested in the issue and the local population, and that each witness is given the opportunity for a fair hearing. You are keen to do a good job so that you can get further government contracts.

#### C: Citizens' Panel members

Your role is to listen to the arguments put forward by the witnesses and to make a note of issues you wish to ask them about further. You will need to make up your mind on the basis of the arguments put forward and not based on information you have read prior to the forum. You may be asked that your character comes from a particular age group, region of the country or ethnic/cultural/faith/women's group.

#### **Version B: Witnesses**

# D: Government energy minister (male)



You are aware of the fact that the coal industry causes a lot of pollution as your daughter is a climate activist and the government has committed to reducing carbon emissions. However, the mine will employ thousands of people and provide cheap, reliable energy, which you believe will give you popular support.

## E: Young activist (male)

You have been inspired by young climate activists around the world. You feel that the education system is not preparing young people for a changing and uncertain future, but as you are from a fairly wealthy local family this may not be such a worry for you. You think that opposing the mine will make you famous on social media.

## F: Co-ordinator of 'Mothers for the Future' (female)



You have been researching the dangers of the climate emergency and believe the damage to the planet is due to the same male-dominated attitudes that exploit women and those with less power. You want everyone to recognise that our well-being depends on caring for ourselves, each other and the planet. You know you face a lot of opposition from those who stand to benefit from the coal mine, but you believe you can get enough local and international support to protect the environment and find more sustainable jobs for local people.

## **G: Local doctor (female)**

You are a local doctor who is aware of the damage that fossil fuels cause to people and to the environment. As many people locally are already suffering the damaging effects of air pollution, you are keen to persuade people that the short-term benefits are not worth the longer-term damage. You are aware that people opposing the mine are being threatened. You fear that the influx of men from nearby towns may increase gender-based violence.

# H: Local headteacher (female)



You think it is a good idea that there will be more jobs for people in a poor area, but you worry that teachers will be taken away to work in the mine offices. You are worried about pupils having to travel a long way to secondary school and that overall more children, especially girls, will lose out on education.

## I: Local person (male)

You have been unemployed for a number of years since a local factory shut down. You have a family to look after. If the mine is built it will provide employment, which will enable you to look after the health of your family and your children's education.

# J: Opposition politician – spokesperson for energy (female)



Your party is keen to be seen to support the goal of net zero and attack the government over its reluctance to end reliance on fossil fuels. However, you do not want to make an enemy of the multinational company behind the proposed mine as you will need their support if you get into government. You hope they might be persuaded to invest in your ideas for greener energy and more green skills for women.

# K: Trade union official (female)



You represent a large manufacturing trade union. You have been petitioned by some of your members to support the phasing out of fossil fuels and investment in green jobs. However, you are concerned to protect as many jobs as possible because union membership is falling, and you worry that if this project is turned down there will be no immediate investment in other jobs.

# L: Chief executive of multinational company (male)



You oversee a multinational company that has made its money from fossil fuels but has promised to invest in renewable energy. You feel that you help to provide thousands of jobs and provide energy security. You are keen to build the mine here as labour is cheap and taxes low. You know the government will not want to lose your investment.

## M: Ex-miner (male)

You used to work in a coal mine but had to give up the job due to ill health as your lungs were badly affected. You feel that the government should be investing in cleaner energy and safer jobs. Many of those who worked with you are also suffering ill health and have received little compensation.

## N: Local pupil (female)

You have heard about the global movement of school climate strikes, but you are more concerned that you may not have the chance to continue secondary education if the school is moved. You feel that that young people, especially girls, are not given enough voice and consideration in discussions about their future.

# O: Member of an ecological group/indigenous person (male)

You are saddened by the loss of natural habitats that you have seen in your lifetime and the growing disconnection between people and nature. You also feel that knowledge about the local environment is disappearing and how we are all connected to and rely on nature. The company has offered to set up a nature reserve elsewhere, but you feel the damage is irreplaceable.

## **Version B: Optional additional roles (genders to be decided)**

## P: Foreign correspondent

You have made a name for yourself investigating controversial stories around the world and sending back front-line reports. You recognise that there is a growing public concern about fossil fuels and climate change and their impacts on the poorest and most vulnerable. However, your employer owns a number of newspapers and television companies and has a lot of money invested in fossil fuels.

# Q: International campaigner against fossil fuels

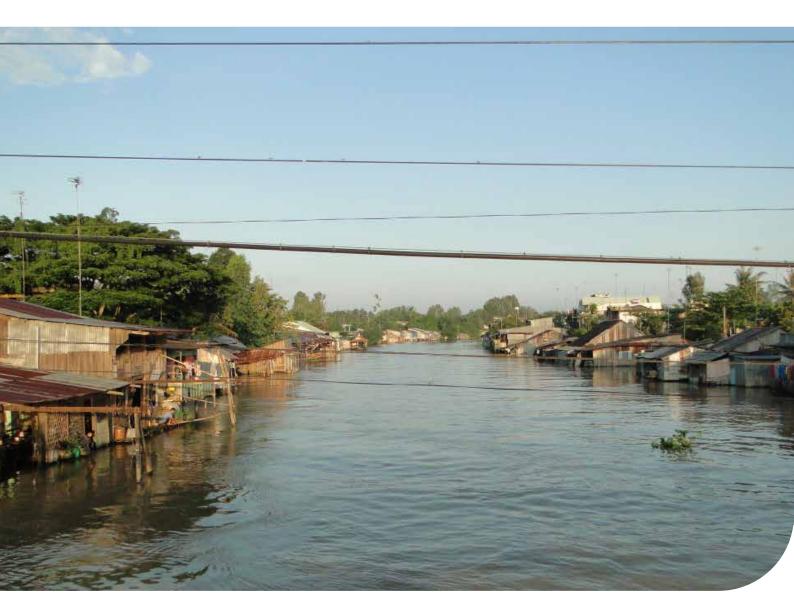
You work for a non-governmental organisation that tries to raise awareness with the public about the damaging effects of the fossil fuel industry on people around the world, and especially how it has more of an impact on women and girls. You believe that most of this industry could convert to clean energy and should help poorer countries to do so. Your father is a wealthy businessman who made a lot of money out of the fossil fuel industry.

# R: Marketing manager, multinational company

You have the job of promoting your company around the world to make sure that you stay ahead of competitors. You are aware that climate change is an issue of growing global concern but feel most people are more worried about their daily lives and that cheap, reliable energy and job opportunities are more important. You think you can persuade people that the company's investment in cleaner energy, promoted through advertising (though much less than your investment in fossil fuels), is making a difference.

## S: Senior civil servant at the Department of Energy

You have been in this department for many years and believe that the government should always focus on ensuring cheap and reliable energy and that most members of the public do not really understand the complexities of moving beyond fossil fuels. A target of zero carbon by 2050 is a long way off.



# **Glossary**

**Action learning** – working together on real-world problems, taking action, reflecting and sharing learning

**Activism** – the activity of working to achieve political or social change, especially as a member of an organisation with particular aims

**Adaptation** – the action or process of changing something to suit a new situation (for example, to prepare for the effects of climate change)

**Afforestation** – the process of planting areas of land with trees in order to form a forest

Agency – the belief that you can make something happen

**Climate** – the regular pattern of weather conditions of a particular place

**Climate change** – changes in the earth's weather, including changes in temperature, wind patterns and rainfall, especially the increase in the temperature of the earth's atmosphere that is caused by the increase of particular gases, especially carbon dioxide

**Debate** – a formal, regulated discussion of an issue between people or groups of people

**Dialogue** – a discussion between two or more people or groups, especially one directed towards exploration of a particular subject or resolution of a problem

**Digital literacy** – competence with operating common computer and internet applications

**Emissions/Emitters** – production or sending out of a substance such as a gas (for example, CO<sub>2</sub>)/those that cause emissions

**Empathy** – the ability to understand and share the feelings of another

**Empowerment** – the process of giving power or status to a person or group of people

**Exploit** – take advantage of someone in order to profit from them or otherwise benefit oneself

**Fossil fuels** – fuel, such as coal or oil, that was formed over millions of years from parts of dead animals or plants

**Gender** – the fact of being male or female, especially when considered with reference to social and cultural differences, rather than differences in biology (the terms 'women' and 'girls' in the resource do not exclude trans women and girls or those identifying as non-binary)

**Gender roles** – the role or behaviour learned by a person as appropriate to their gender, determined by the prevailing cultural norms

**Gender-based violence** – violence that is directed against a person because of that person's gender, gender identity or gender expression, or which affects persons of a particular gender disproportionately. It may result in physical, sexual, emotional or psychological harm to the victim, or cause them economic loss

**Hazard** – something that can be dangerous or cause damage

**Interdependence** – the idea that everything (for example, in nature) is connected to and depends on every other thing

Intersecting identities (intersectionality) – the concept that an individual's identity consists of multiple, intersecting factors, including but not limited to gender identity, gender expression, race, ethnicity, class (past and present), religious beliefs, sexual identity and sexual expression

**Mitigation** – a reduction in how unpleasant, serious or painful something is

**Power relations** – the idea that if someone has power, they have a lot of control over people and activities

**Resilience** – the ability to withstand adversity and bounce back from difficult life events

**Role play** – learning activity where people act out roles in a particular scenario

**Social norms** – rules and standards that are understood by members of a group, and that guide or constrain social behaviours

**Sustainability** – the ability to exist and develop without depleting natural resources for the future

**Sustainable development** – the processes and pathways to achieve sustainability

**Systems thinking** – an approach to problem-solving that views 'problems' as part of a wider, dynamic system. It is the process of understanding how things influence one another as part of a whole

**Transformative learning** – the idea that learners receiving new information are also evaluating their past ideas and understanding, and are shifting their world view both as they obtain new information and through critical reflection

**Stereotype** – generalised belief about a particular category of people

**Vulnerability** – being weak and easily hurt physically or emotionally

**Weather** – the condition of the atmosphere at a particular place and time, such as the temperature, and whether there is wind, rain, sun, etc.

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## **Further resources**

(© British Crown copyright 2021, The Met Office) Climate Change, How fast is the world warming? (5 mins 45 secs) https://youtu.be/vMDeHUiqPZw\_

Climate Change Education in Schools – Campaign Against Climate Change

https://www.campaigncc.org/schoolresources

Education, Girls' Education and Climate Change – Institute of Development Studies

https://opendocs.ids.ac.uk/opendocs/ handle/20.500.12413/16523?show=full

Gender Equality - British Council

https://connecting-classrooms.britishcouncil.org/resources/global-learning-resources/gender-equality

Gender Equality in Schools – https://genderequalityinschools.org

Gender Responsive Pedagogy – A Toolkit for Teachers and Schools second edition – Forum for African Women Educationalists/UNICEF 2020

https://www.unicef.org/esa/media/6726/file/GRP-A-Toolkit-for-Teachers-and-Schools-2020.pdf

How can we combat climate change? – British Council - <a href="https://connecting-classrooms.britishcouncil.org/resources/get-started-global-learning/combat-climate-change">https://connecting-classrooms.britishcouncil.org/resources/get-started-global-learning/combat-climate-change</a>

How can we increase awareness of climate change? – British Council

https://connecting-classrooms.britishcouncil.org/resources/get-started-global-learning/increase-awareness-climate-change

Non-Violent Action: A Force for Change Lesson Plans 2021 – DFCSY

https://www.decsy.org.uk/projects/non-violent-action-a-force-for-change-lesson-plans/

The climate crisis is a child rights crisis: Introducing the Children's Climate Risk Index 2021 – New York: United Nations Children's Fund (UNICEF) https://www.unicef.org/media/105376/file/UNICEF-climate-

crisis-child-rights-crisis.pdf

Tools for Climate Action 2020 – UNICEF 2020 https://www.unicef.org/lac/en/reports/tools-climate-action

What does gender equality mean to your pupils? – British Council

https://connecting-classrooms.britishcouncil.org/resources/get-started-global-learning/gender-equality-roles

Youth Leadership in Climate Policy Workbook and Facilitator's Guide – Plan International <a href="https://plan-international.org/publications/youth-leadership-climate-policy-workbook-and-facilitators-guide">https://plan-international.org/publications/youth-leadership-climate-policy-workbook-and-facilitators-guide</a>

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