Global Inequalities and the Climate Crisis

A curriculum resource for school geography

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Produced as a partnership between the Geographical Association, the University of Lancaster, the Open University and the University of Aberdeen

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Introduction

Global Inequalities and the Climate Crisis (GICC) is a curriculum resource that has been developed to support school geography teachers in teaching about how global inequalities intersect with the climate crisis. The curriculum resource takes as its focus the country of Cameroon, but seeks to demonstrate how the experiences of Cameroonian people are interdependent with those of others around the world and are shaped by global relationships of power. The resource was produced in partnership between the GA and academics involved in the Decolonising Education for Peace in Africa (DEPA) project, and draws on research conducted by these researchers in Cameroon.

This means that the resource draws directly on lived experiences and testimony from Cameroonian people. This will support teachers to incorporate testimonies from Cameroon into their teaching about climate change, and also ensures that Cameroonian voices are positioned in relation to the lived experiences of others elsewhere in regards to the climate crisis. The resource thus responds to calls by geography educators for more diverse and anti-racist teaching resources (Rawlings-Smith and Kinder, 2022).

The resource also responds to the All-Party Parliamentary Group for Africa's Education report (2022), which found an 'impoverished treatment of Africa in the school curriculum', replete with misconceptions (APPG, 2022, p. 10). By developing a detailed case study of one country, informed by ethnographic narratives of lived experiences drawn from residents of that country, the resource seeks to support teachers of geography in providing more sensitive representations of Africa in their classrooms.

The resource takes seriously the APPG's assertion that 'the mere inclusion of information about Africa in a curriculum cannot secure the transformation of young people's understanding'. Instead, they argue that 'Teaching about Africa should allow for discussion and debate about the different ways in which knowledge and expression are developed in African heritages and cultures' (APPG, 2022, p. 14). The resources thus give space to Cameroonian residents to explain in their own words the impact that the climate crisis is having on them, and the strategies being developed by Cameroonian individuals, organisations and governmental bodies in response.

Overall, these resources present a collaboration between academic researchers, school geography teachers and the Geographical Association as a subject body. The narrative and focus for these resources stem from the subjective perspectives of those involved in the production of the resources, and is informed by the experiences of those whose ethnographic testimonies provide the basis for this curriculum resource. There are other stories to be told about global inequalities and the climate crisis, and other ways the story we tell here could have been narrated.

References

APPG (2022) APPG Africa Education Enquiry Report. Available at: https://bit.ly/3XXYYIU.

Rawlings-Smith, E. and Kinder, A. (2022) *The professional needs and views of teachers of geography*. Sheffield: Geographical Association.

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Outline and summary of the curriculum resource

Below is a short outline of the Global Inequalities and the Climate Crisis curriculum resource, followed on the next pages by suggested lesson plans. Teachers, as curriculum-makers attuned to their own school and departmental contexts, are well placed to decide how best to plan and teach lessons, so the lesson plans contained here should be read as guides and aids to teaching, rather than pre-formulated instructions on exactly how this curriculum resource should be used.

Lesson title	Teaching materials	Lesson summary
Lesson 1: How is the climate crisis impacting on people's lives around the world?	• Lesson PowerPoint • Worksheet: 'Climate change impact around the world': A world map locating impacts of climate change • Worksheet: 'Three stories of real people's experiences': Short narratives of people's lived experiences related to climate change	This lesson provides a concise introduction to climate change and the climate crisis. It also introduces students to the varied global impacts of the climate crisis, and connects these to the lived experiences of three individuals from different geographical contexts.
Lesson 2: Why study climate change in Cameroon?	• Lesson PowerPoint • Worksheet: 'Environmental impacts of climate change in Cameroon': A map of Cameroon accompanied by text relating to environmental impacts of climate change in Cameroon	This lesson introduces the country of Cameroon. It also establishes that the climate of Cameroon is changing, and enables students to discuss and evaluate the significance of the environmental impacts of this changing climate.
Lesson 3: How is deforestation contributing to environmental change in Cameroon?	• Lesson PowerPoint • Worksheet: 'Causes of deforestation in Cameroon': A guided reading worksheet focused on the reasons for deforestation in Cameroon • Worksheet: 'Why are trees important in Cameroon?': Information and carbon cycle diagram for annotating	This lesson introduces deforestation as a leading driver of environmental change in Cameroon. It also establishes that there are many different causes of deforestation in Cameroon, some driven by local needs but others by global trade.
Lesson 4: How do inequalities affect experiences of the climate crisis in Cameroon?	• Lesson PowerPoint • Worksheet: 'What are the impacts of the climate crisis in Northern Cameroon?': Quotes from people in Cameroon reflecting on how the climate crisis is impacting them • Worksheet: 'The climate crisis and global inequalities': A guided reading worksheet focused on how the impacts of climate change in Cameroon are driven by global inequalities	This lesson introduces the concept of inequalities. It enables students to reflect on how global inequalities directly shape people's experiences of the climate crisis in Cameroon.
Lesson 5: How are government and civil society responding to the climate crisis in Cameroon?	• Lesson PowerPoint • Worksheet: 'Stakeholder role cards': Role cards enable students to consider the experiences and aspirations of Cameroonian citizens, based on ethnographic interviews with people in Cameroon, and to reflect on policies to support mitigation and adaptation in the face of the climate crisis in Cameroon.	This lesson introduces students to strategies being used to mitigate and adapt to the climate crisis in Cameroon. It allows students to put themselves in the position of Cameroonian citizens and discuss what actions they might want to see being taken to tackle the climate crisis.

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Lesson 1: How is the climate crisis impacting on people's lives?

Lesson introduction (Duration: first 10 mins of the lesson)

Slide 2: Three images are presented showing effects of a warming climate in Greenland, Northern Cameroon and Hawaii. Students 'say what they see', and the teacher facilitates discussion of the images, focusing on aspects of climatic and environmental change.

Teaching phase 1: Understanding climate change (Duration: approximately 15-20 mins of the lesson)

- This phase develops student understanding of the general issue of climate change, so teachers will need to be sensitive to what students have already learned about this topic. Using slide 3, teachers can establish and then discuss with students their prior knowledge of climate change. Students may take a minute to write their own thoughts, perhaps on mini-whiteboards, then discuss in pairs before feeding back in whole-class discussion facilitated by teacher questioning.
- Slides 4 and 5 present images and text that enable the teacher to introduce the idea of 'climate science' as the professional scientific pursuit of improved understanding about how Earth's climate is changing. Students may note down what scientists currently know about climate change, and the teacher may facilitate whole-class questioning to assess understanding.
- Slide 6 presents data on total global carbon emissions, and students respond to the 'true/false' statements to interpret the data. This could be done in exercise books or on mini-whiteboards, and students may be asked to construct their own 'true/false' statements for their peers.
- Slide 7 shows the changes in cumulative (total) carbon emissions over time for five different countries. Students are asked to note down their initial observations from the graph and to summarise in a paragraph what the graph shows. The teacher may use the whiteboard to support and scaffold this, drawing on the observations made by students.
- Slide 8 enables the teacher and students to consider how and why the language used to talk about climate change has evolved over time. The class can discuss why 'climate change', 'global warming', 'climate crisis' and 'climate emergency' have all been used, and the teacher can use questioning to facilitate discussion of the advantages and disadvantages of each of these terms.

Teaching phase 2: How is the climate crisis impacting on people's lives? (Duration: approximately 25-30 mins of the lesson)

- Slide 9 and the worksheet 'Climate change impact around the world' allow students to consider the global impacts of our changing climate. Students first read the information on their map, then they might work in pairs to categorise each impact as social, economic or environmental (teachers may need to scaffold the introduction of these categories, depending on students' prior experience of such categorisation in the class). Students can be asked to rank the impacts in terms of their significance, and generate their own explanations for their ranking. The teacher can then facilitate whole-class discussion of the map, including using questions such as: which parts of the world are affected by the climate crisis? What categories of impact do you think are most significant, and why? Can you identify any impacts that might affect more than one place?

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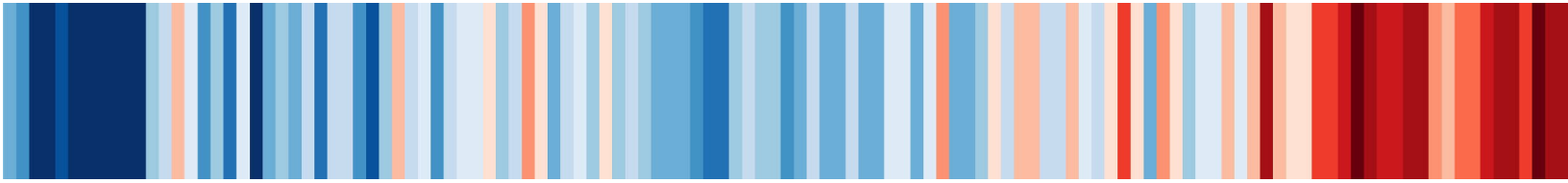

- Slide 10 and the worksheet ‘Three stories of real people’s experiences’ then allow the class to consider the lived experiences of different people in relation to our changing climate. The teacher might invite members of the class to read the experiences aloud, or students could be asked to read one or more of the narratives on their own before feeding back about the story they have read to the class. The teacher facilitates discussion of the narratives using questions such as: How has climate change affected this person/these people? How significant are the impacts they have experienced? What might these people do to manage the challenges being presented by climate change? How might these experiences of climate change compare to those of people in another place you have previously studied in geography? Would you use the term ‘climate crisis’ to describe these peoples experiences? Why/why not?
- Evaluating the impacts of the climate crisis on different people and places is a good way to end this lesson. If the teacher wishes to have a plenary with which to close, they could ask students to note down three things they have learned about climate change today either in books or on mini-whiteboards. These could then be used as prompts for one final whole-class discussion, if time allows.

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Lesson 2: Why study climate change in Cameroon?

Lesson introduction and teaching phase 1: Introducing Cameroon (Duration: approximately 20-25 mins of the lesson)

- After introducing the lesson title using slide 1, slide 2 contains images from Cameroon. The teacher may explain that it is impossible to capture every aspect of a country with a few images, so a selection process is needed. Students may think about why these images were chosen. Teachers may wish to begin the lesson with this task on the board for students to begin as they enter. They could 'think, pair, share', first writing a list of things that they see in the images that seem interesting, then discussing these in pairs and finally sharing them in whole-class discussion. Some classes may wish to categories features from the images into social geography, economic geography, environmental geography etc. The teacher may make links to other places that students have learned about in previous geography topics where possible.
- Slide 3 introduces the idea of Cameroon as 'Africa in miniature'. This idea suggests that Cameroon includes the diversity and richness on display throughout Africa. A tourist video is used to help students visualise this. The teacher should introduce the video to students by making clear that this is a subjective representation – it displays the perspectives of those who made the video, and it has been made for a particular audience (tourists). This may mean students will be interested in discussing what the video chooses to include, and what things might be missing from it. Teachers may also wish to encourage students to reflect on the diversity of Cameroon, and the aspects that they find most intriguing.
- Slide 4 provides an opportunity for students to learn about the location of Cameroon. If a class set of atlases is available, or if there is a world map in the classroom, the teacher may wish to use these too.

Teaching phase 2: Changing climates and Cameroon (Duration: approximately 30-35 mins of the lesson)

- Slide 5 enables the teacher to introduce a comparison of climate change in Cameroon and the UK. Before introducing the graphs on this slide, the teacher may wish to prompt students to recall knowledge from last lesson by asking questions such as: what can we remember about climate change from last lesson? What are the causes of climate change? What are some of the impacts of climate change? The teacher can introduce the graphs and ask students to compare them. Students should work in pairs to try to decide which graph they think might be for Cameroon, and which for the UK. The top graph is Cameroon and the bottom right graph is the UK.
- Slide 6 includes statements from people in the UK and Cameroon relating to climate change. Students should try to decide in pairs which statements they think are said by a person from Cameroon, and which by someone from the UK. The teacher can emphasise to the class the ways in which experiences of climate change in the two countries overlap. This can help to emphasise that although climate change impacts on people differently in different places, there are, nevertheless, some similarities in experience.
- Slide 7 introduces students to regional differences in the impacts of climate change in Cameroon. Students use the worksheet 'Environmental impacts of climate change in Cameroon'. The map helps students locate some of the different impacts that are affecting different parts of the country. A summary table helps students identify different impacts of climate change in Cameroon.

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Students should be encouraged to summarise the main environmental impacts that climate change is having in Cameroon. This could be done in the form of a mind map, and teachers may wish to model this on the board with students. Other forms of note-taking and summarising could be used instead if preferred.

- Slide 8 can then be used to help students to work in pairs to plan and prepare a short speech about the environmental impacts of climate change in Cameroon. It may help for the teacher to set a context – perhaps students could imagine that they are a journalist reporting on the topic. There are some supportive success criteria and key words on slide 8, but teachers may wish to model how students might draft their short speeches. A small selection of students can then present their speeches to the class, with their peers writing one-sentence summaries of each speech.
- Slide 9: recap and reflection. The image comes from the far North region of Cameroon and shows a dried river bed. The image shows how the climate crisis has changed landscapes and livelihoods in Cameroon. Students may reflect on the wider implications of dried riverbeds and desertification, such as biodiversity loss, impacts on fishing and food supply, and loss of the river as a source of fresh water and means of transport.

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Lesson 3: How is deforestation contributing to environmental change in Cameroon?

Lesson introduction (Duration: First 10 minutes of the lesson)

Slide 2 contains three images: a European furniture shop selling wooden furniture, a cup of tea and a bar of chocolate. Students guess the connections between each of these three products and climate change. The teacher may prompt students to write short explanations of what they believe are the connections by writing terms such as trade, deforestation, carbon emissions and other related terms on the board. The teacher can then facilitate a whole-class discussion by asking students to share their ideas.

Teaching phase 1: Vulnerability and changing tree cover in Cameroon (Duration: approximately 10-15 mins of the lesson)

- Using slide 3, the teacher should introduce the concept of vulnerability to climate change. This is partly about exposure to environmental risk, and the teacher could ask students if they remember any environmental changes being caused by climate change from last lesson. However, vulnerability is also caused by social, economic and political processes and decisions. The teacher should explain that deforestation is one cause of vulnerability to the climate crisis in Cameroon, and in this lesson, students will learn about the many different causes of deforestation. They may question students about any possible causes of deforestation, and make links to previous topics if students have studied deforestation before.
- Using slide 4, the teacher should introduce the cultural and environmental importance of trees in Cameroon. Either the teacher or students can read the quote on slide 4 from a Cameroonian artist, and the teacher may ask students what they know about the environmental importance of trees. Using slide 5, after discussing why trees are important, students then use the worksheet 'Why are trees important in Cameroon?' and information from slides 4 and 5 to write a list of reasons (they may do this by drawing a small tree diagram and labelling it). The teacher can then use slide 6 to enable students to add other ideas to their work, and to use questioning to ensure students understand the environmental and social importance of trees in Cameroon.

Teaching phase 2: The causes of deforestation in Cameroon (Duration: Approximately 20-30 mins of the lesson)

- Slide 7 presents a graph showing data on tree cover loss in Cameroon between 2001 and 2022. Students can analyse the graph to establish the general trend. They may be asked by the teacher to write an analysis of what the graph shows.
- Images on slide 8 show two different causes of deforestation in Cameroon: industrial logging for timber export overseas and tree-felling by local communities for fuel, buildings or furniture-making, as well as clearing forests for farmland. Students could be asked to discuss the similarities and differences they can observe in the two photographs. Slide 9 asks students to consider whether or not Cameroon should cease all tree-cutting, and why.
- Slide 10 includes photographs linked to three main causes of deforestation in Cameroon. Using the guided reading worksheet 'Causes of deforestation in Cameroon' students consider the different causes of deforestation in Cameroon and make decisions about the significance of each different cause.

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Teaching phase 3: Reflecting on the causes of deforestation in Cameroon (approximately 10-15 mins of the lesson)

- Slide 11 shows a photograph of land that was formerly forest, but has been converted into a tea plantation in Cameroon. Demand around the world for plantation crops like tea, chocolate, fruits and nuts makes this crop a profitable investment. The teacher can ask students to consider their views on supplying crops like these for consumption in countries like the UK. Teachers may wish to discuss with students how trade in goods such as tea, cocoa and so on makes the UK interdependent with countries like Cameroon. Economic purchases in the UK are connected to varied social, economic and environmental impacts in Cameroon.
- Using slide 12, students encounter a quote from Cameroonian teacher Yeba Sylvia explaining why local communities cut down trees, and the impacts this can have on the soil and climate. Students can be asked what causes of deforestation Yeba Sylvia is discussing here, and what they think could be done to reduce these causes of deforestation.
- Slide 13 returns to the question posed at the start of the lesson. Students can be encouraged to write a reflection on their learning from this lesson by exploring how trade in wood, tea and chocolate contribute to deforestation and climate change. More sophisticated answers may also consider other causes of deforestation in Cameroon.

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Lesson 4: How do inequalities affect experiences of the climate crisis in Cameroon?

Lesson introduction (Duration: First 10 minutes of the lesson)

After introducing the lesson title, the teacher can turn to the Worldmapper image on slide 2. This map shows carbon dioxide emissions per country from 2020. Students can discuss what they think the map shows and try to describe differences between countries and regions. The teacher can establish prior knowledge around the concept of inequalities by asking students how the map might show these inequalities. A version of this map showing changes over time since 1970 can be accessed here: https://worldmapper.org/map-animation-co2-emissions/

Teaching phase 1: The difference between variations and inequalities (Duration: approximately 10 minutes of the lesson)

An important distinction for students to grasp is that between inequalities and variations. We explore this briefly at the start of this lesson to ensure students can apply the concept of inequality/inequalities later in the lesson.

- Using slides 3 and 4, the teacher can introduce the idea that there are variations in both climate and quality of life between northern and southern regions in Cameroon. By reading quotes from a Cameroonian farmer, who migrated away from the north of the country to the south, students can think about the differences between the two, and how the climate and quality of life have varied both over time and between places.
- The teacher can use slide 5 to introduce the definitions of geographical variations and geographical inequalities. Crucial to the distinction is the idea that inequalities exist when variations are caused by unequal distributions of wealth, resources, services or power.

Teaching phase 2: The climate crisis and inequalities within Cameroon (Duration: approximately 15-20 mins of the lesson)

- Slide 6 can be used by teachers to introduce three types of inequalities that shape the way that the climate crisis impacts on people and communities within Cameroon. These are: regional inequalities, gender-based inequalities and poverty-based inequalities. Once the teacher has introduced these three categories of inequality within Cameroon, students read the quotes on the worksheet ‘What are the impacts of the climate crisis in northern Cameroon?’. Students can categorise the different inequalities that they read about into regional, gender-based and poverty-based categories. They will find that some impact over more than one category. Students can evaluate the significance of each inequality for the people and communities in Cameroon.
- The teacher can use the image on slide 7 to encourage students to apply their knowledge. The image shows a riverbed impacted by desertification as a result of the climate crisis. The teacher might ask: what social/environmental/economic impacts do you think this image might be linked to? How might this image show inequalities resulting from the climate crisis? On the slide, students are asked to plan and prepare a very short interview between a journalist and resident of this place discussing the challenges being faced.

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Teaching phase 3: The climate crisis and inequalities between Cameroon and other countries (Duration: approximately 15-20 mins of the lesson)

- Using slide 8, the teacher can introduce the idea that there have been inequalities between Cameroon and other countries that have shaped how the climate crisis impacts on people. These inequalities are categorised as associated with history, government policies and global trade.
- Students then read the guided reading sheet 'The climate crisis and global inequalities' and use the questions to help them analyse the content. The teacher might ask students in pairs to evaluate the significance of the different factors.
- Slide 9 then presents a quote from a Cameroonian environmentalist who describes global inequalities in carbon dioxide emissions. Students should be asked their opinion about this quote and challenged to respond to it with evidence from the lessons so far. This discussion can provide opportunities for teachers to assess student understanding of global inequalities and the climate crisis in the Cameroonian context.

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Lesson 5: How are the government and civil society responding to the climate crisis in Cameroon?

Lesson introduction (Duration: First 10 mins of the lesson)

The lesson begins with the climate stripes for Cameroon since 1901 (slide 2), as well as the climate stripes displayed in the form of a bar graph. These data visualisations can be used by the teacher to encourage students to reflect on what they have learned so far about global inequalities and the climate crisis in Cameroon. The teacher could encourage students to reflect on causes, impacts and inequalities in relation to the climate crisis.

Teaching phase 1: Responding to the climate crisis in Cameroon (Duration: approximately 10-15 mins of the lesson)

- Using slide 3, students can be introduced to the concepts of mitigation and adaptation. Teachers will need to reflect on whether students have come across these terms before, and may ask students to recall where and when these terms have been encountered previously in order to build on prior knowledge. Teachers might also ask students to come up with ideas, for example of ways to mitigate the impacts of, or adapt to, the climate crisis.
- Slide 4 introduces students to one strategy, the Cameroon Mangrove Ecosystem Restoration and Resilience Project (CAMERR). This scheme involves replanting and conserving coastal mangrove forests. Cameroon hosts 6% of Africa's mangrove forests, including some of the tallest mangrove trees in the world. Students could be asked to recall their previous learning about trees and climate change (lesson 2), and to 'think, pair, share' ideas about how planting mangrove forests might help respond to the climate crisis.
- Slide 5 includes further information about mangrove forest replanting in Cameroon. Students can discuss the reasons why Cameroon is seeking to plant mangrove forests and evaluate the significance of this as a strategy. Slide 6 asks students if they think this is a strategy to mitigate the risks from climate change or adapt to it. A case can be made for either answer: mangrove help mitigate the risks of climate change by taking carbon out of the atmosphere and storing it, especially in their root systems; they also help adapt to climate change by acting as a defence against coastal flooding.

Teaching phase 2: Decision making exercise (Duration: 20-30 mins of the lesson)

- Students have been introduced to ways that Cameroon and other countries can mitigate against and/or adapt to the risks of climate change. Using slides 7 to 9 they work in groups to make decisions about the strategies that they believe different Cameroonian individuals and groups would most prefer the Cameroonian government to adopt. Students adopt the role of different Cameroonian citizens using character cards from the worksheet: 'Stakeholder roles cards', which are based on interviews with real people in Cameroon. Students work in groups of five, if possible, with four students taking on characters based on the Cameroonian citizens and one student in role as the chairperson from NOCC. This person should prepare a brief introduction to the debate and also consider some questions they could ask each character.

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- Once students have had time to read about their character and decide upon their priorities, they can then participate in a mock-NOCC meeting to debate the different priorities they have come up with. The chairperson should introduce the discussion and keep the discussion focused on the topic. The teacher should facilitate the planning of the meeting and the meeting itself, and at the end of the decision-making exercise, students respond to the questions on Slide 10 to reflect on the discussion and decisions that were made.
- Once the students have had sufficient time to discuss and debate, the teacher should facilitate a closing discussion. This could use slide 11, starting with the stimulus phrase 'The best way to tackle global inequalities and the climate crisis in Cameroon is…'. The teacher may question students about the challenges and difficulties of tackling global inequalities and the climate crisis. They should also challenge students to support their arguments with evidence drawn from the lessons.

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