

SESSION 5: ADAPTING TO CLIMATE CHANGE

Age range: 11–14 years

Outline Learners will investigate how some communities around the world are adapting to the effects of climate change. They will take part in a group activity to consider possible ways in which a community in Bangladesh could adapt to flooding. Learners will then use a case study to explore in more detail how one community in Bangladesh is adapting to the effects of climate change.		
Learning objectives <ul style="list-style-type: none">• To understand what climate change adaptation means.• To describe some ways in which communities around the world are adapting to the effects of climate change.		Learning outcomes <ul style="list-style-type: none">• Learners will work with others to consider possible ways in which a community in Bangladesh could adapt to the impacts of flooding.• Learners will investigate some approaches that individuals and communities are taking to adapt to the effects of climate change.
Key questions <ul style="list-style-type: none">• What is climate change adaptation?• How are people and communities being affected by climate change?• What would you do?• How are people and communities adapting to the effects of climate change?• How is Oxfam helping communities to adapt to the effects of climate change?		Resources <ul style="list-style-type: none">• Climate challenge B slideshow: slides 8–24• Resource sheets:<ol style="list-style-type: none">1. Flooding in Bangladesh2. Sahena’s story - Case study• Activity sheet:<ol style="list-style-type: none">1. Sahena’s story - Prompt cards2. Sahena’s story – Headings
Curriculum links		
England KS3 Geography <ul style="list-style-type: none">• Human and physical geography- Pupils should be taught to understand how human and physical processes interact to influence, and change landscapes, environments and the climate; and how human activity relies on effective functioning of natural systems. KS3 Citizenship <ul style="list-style-type: none">- Pupils should be taught about the roles played by public institutions and voluntary groups in society, and the ways in which citizens can work together to improve their communities.	Wales KS3 Geography <ul style="list-style-type: none">• Understanding places, environments and processes: Explain the causes and effects of physical and human processes and how the processes interrelate.• Investigating: analyse and evaluate ideas and evidence, answer questions and justify conclusions. ESDGC: Climate Change, Choices and Decisions	Scotland Social Studies <ul style="list-style-type: none">• By comparing settlement and economic activity in two contrasting landscapes, I can reach conclusions about how landscapes influence human activity. I can explain my findings clearly to others.<div>SOC 3-13a</div>• By examining the role and actions of selected international organisations, I can evaluate how effective they are in meeting their aims.<div>SOC 4-19b</div>

Activity 5.1 (40 min)

What would you do?

Please note that this activity is adapted from Oxfam's What does Oxfam do? learning material:

www.oxfam.org.uk/education/resources/what-does-oxfam-do

- Show slide 9 of the Climate challenge B slideshow. Discuss learners' ideas about what climate change adaptation means. Explain that climate change adaptation is about responding to the impacts of climate change, to reduce the vulnerability of people, plants, animals and natural systems. Oxfam are already working with communities around the world to help them adapt to the effects of climate change.
- Use slides 10 to 12 to share examples of how Oxfam is working with local communities to support them to prepare for and adapt to the effects of climate change.
- Show slide 13. Organise learners into groups of four to six and explain that they need to imagine that they are Oxfam employees working in Bangladesh. Explain that most Oxfam workers come from the country in which they work and that Oxfam works in partnership with other organisations and local communities to prepare for and tackle the impacts of natural disasters.
- Give each group a copy of Flooding in Bangladesh. Ask learners to read the sheet and discuss solutions to the problems expressed in the 'group challenge' on the worksheet.
- Ask groups to feedback their ideas to the whole class. Then, display and briefly discuss slides 14 to 17 which provide examples of how Oxfam worked has with local communities in Bangladesh to solve problems caused by flooding.
- Still imagining they are Oxfam workers using the expertise of local organisations and communities, ask learners to evaluate their own and Oxfam's solutions to the problems and then choose the two or three ideas they like best. They might like to list pros and cons of the different solutions to help them with their decision-making.

Differentiation

Make it easier: Ask groups to select and discuss only one or two problems from the list in Flooding in Bangladesh (Resource sheet 1).

Activity 5.2 (30 min)

Sahena's story

- Show slides 18 to 24. These slides introduce Sahena Begum from the village of Kunderpara in the Gainbandha district of Bangladesh.
- Organise learners into groups of three. Give each group copies of Sahena's story – Prompt cards and Headings.
- Explain that the main aim of this activity is to find out more about some of the ways in which this community is being affected by and adapting to climate change. Ask learners to cut out and read the prompt cards. They should then sort them into three groups according to these headings:
 - Heading 1: How is climate change affecting Sahena's community?
 - Heading 2: What is Sahena doing to help her community adapt to the changes caused by

climate change?

- Heading 3: How is Oxfam helping Sahena's community to adapt to the changes caused by climate change?

- Learners may decide that some of the cards fall under more than one heading.
- Allow time for learners to share their answers as a whole-class.

Differentiation

- Make it harder: Instead of sorting the prompt cards, ask learners to use the case study: Sahena's story – Case study (Resource sheet 2). Learners should highlight any relevant text in three different colours according to the above headings.

Further ideas

- Point out that many of the stories about how communities are being affected by and adapting to climate change focus on women. Discuss with learners why they think this is.
 - Although all poor people are vulnerable to climate change and extreme weather, women are often the most vulnerable because they often have a wider burden of responsibilities and are more dependent on natural resources to carry out their tasks. These responsibilities usually include childcare and performing tasks that often rely on the availability of clean water. Men are often in a stronger position to cope (in other words, are less vulnerable) because of their access to the cash economy and greater decision-making power. Owing to their wider supportive role, working alongside women to meet the challenges posed by climate change benefits the whole community. Sahena's story was deliberately used in Activity 5.2 to highlight the fact that women are often more affected by climate change than men.
 - Learners could use a 'why-why-why chain' to think more about why women are often the most vulnerable to the effects of climate change.
 - For more guidance on using 'why-why-why chains', see page 12 of Oxfam's Global Citizenship in the Classroom: A guide for teachers:
www.oxfam.org.uk/education/global-citizenship/global-citizenship-guides

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Flooding in Bangladesh

Resource sheet 1

Decide how to support flooded villages

The Problem:

Flooding in Bangladesh

Much of Bangladesh is low-lying, not far above sea level and floods have always been common.

As the world's climate changes, floods in Bangladesh are becoming more serious and happening more often.

The poorest people generally live in the areas most likely to flood.

Your group's challenge:

You work for Oxfam. It is your job to work with people to protect themselves against future floods.

How could these problems be solved?

- When it floods, drinking water can become mixed with dirty flood water and sewage. This can make people ill.
- A flood can wash away houses and crops leaving people with no shelter or food.
- People living in very small, isolated villages may not know when the floods are coming.
- The climate is changing, making the weather more unpredictable in Bangladesh and flooding more likely.

Keep in mind...

- It is best if you can help people to help themselves.
- The simple solutions are often the most effective.

Bangladesh Fact File

Name:

Bangladesh

Capital:

Dhaka

Continent:

Asia

Population:

165 million

Average life expectancy:

73 years

Climate:

Bangladesh has a tropical monsoon climate. Most of Bangladesh's rain falls between June and September.

CO₂ emissions per person (tCO₂): 0.7

Data rounded to the nearest whole number (population data to the nearest million)

Data sources: World Bank Open Data: data.worldbank.org

The Global Carbon Atlas: globalcarbonatlas.org



In this picture Sahena is making a clay oven that can be carried to high ground in case of floods. Her mother taught her to do this. She says: "People are better prepared now, but the floods are getting worse. It's now much harder to predict when it's going to be hot and when it's going to be cold."

Sahena - President of a Women's Committee which prepares for disasters - Bangladesh

Sahena's story - Prompt cards

Activity sheet 1



Sahena visits her neighbour Miriam Begum. With the support of Oxfam and a local partner organisation, GUK, Miriam has raised her house to protect it from floodwater.



Sahena says that farmers can no longer predict the seasons. It's cold when it should be hot and hot when it should be cold. The villagers no longer know the best time to plant or harvest their crops.



Oxfam has trained people on how to set up floating gardens. The gardens are built on rafts made of water hyacinth.



Oxfam has supported communities to set up committees which help people before, during and after floods. They meet weekly to plan for flood warnings and other ways to improve community life.



As president of the women's group Sahena listens carefully to flood alerts on the radio so that her community has time to prepare.



A toilet raised by the local community. It is important to keep toilets and water pumps above the floodwater level to prevent the spread of disease.



Oxfam provides funding to buy radios so villagers can listen to flood warnings. One radio covers four or five villages, reaching around 300 households.



Sahena finishes making a clay oven. The oven will be kept dry on high ground with food and fuel if there is a flood warning.



Storms and floods have always affected Bangladesh. But climate change means they are becoming more frequent and severe. Poor people are becoming more vulnerable to their impact.



The women's group organises villagers to work together to raise their houses. This helps keep children, the elderly and animals safe during a flood.

Credit: Amin/Oxfam; Golam Rabban/Oxfam; Mary Saunders/Oxfam; Peter Caton/Oxfam

Sahena's story - Headings

Activity sheet 2

Sort the Prompt Cards into three groups according to these headings. You may decide that some of the cards fall under more than one heading.

Heading 1: How is climate change affecting Sahena's community?

Heading 2: What is Sahena doing to help her community adapt to the changes caused by climate change?

Heading 3: How is Oxfam helping Sahena's community to adapt to the changes caused by climate change?

Sahena's story - Case study

Resource sheet 2

Sahena Begum is 26 years old. She lives in the village of Kunderpara in the Gainbandha district of Bangladesh. Her family moved here after their previous home and land were destroyed by floods. This is the ninth time that they have moved chars trying to survive the floods. Sahena is married to Kasim. They have two children, a daughter, Kajili (7), and a son, Suman (4).

Sahena passed the fifth grade and then gave up school. She now wishes that she had been able to finish her education.



Credit: Amin/Oxfam

"Just imagine what all I could have done if I had an education. I could have had a proper job... I would love to go back to school and pick up where I left off."

Sahena and her husband are day labourers and tend to their fields to make a living. They are agricultural farmers and make around 50-60 BDT (Bangladesh Taka – about £0.50) a day. However, there is not enough paid work for them to work every day.

Floods have always been a part of life here. But in recent years the annual monsoon rains have become less predictable and much heavier. Many people believe that this is a result of climate change.

In Bangladesh, it is usually women who collect water and fuel, grow and prepare food, and care for their families. All these tasks become more difficult when the floods come. Sahena is president of the local women's committee. She is helping women – and therefore the wider community – to adapt to and prepare for flooding.

"If women are aware then families can be saved from many losses. Diseases can be avoided, animals can be saved, the children are properly looked after and the women themselves are saved from a lot of suffering."

Members of this women's group have learned to build portable clay ovens, which are then stored in a high place, along with wood to use as fuel. They have also started growing and preserving vegetables. And, working with Oxfam's local partner organisation, GUK, they have begun raising homes above the flood levels. This means that livestock and possessions can be saved in the monsoon season. Like many people, in previous years Sahena has lost everything to the floods.

GUK have also given Sahena a radio, so that when flood warnings are broadcast, she can immediately organise a village meeting and spread the word. She then accompanies children, the elderly and anyone who is unwell to the raised shelter she helped to build, a ten-minute walk away.

Sahena is fiercely determined that things will be different. "The fact that we have come together to form this group is really a matter of pride for us women," she explains. "We are not born to suffer. We are born to fight."

Key words

Monsoon: A seasonal wind which brings rain to the regions of South and South East Asia.

Char: A char is a Bengali word which is used to describe an island formed in a river. There are many hundreds of chars in the rivers of Bangladesh. They are low-lying and at risk of flooding.