

Dealing with Disasters

Lesson plan 4: Exploring a cyclone shelter

Age group: 11 - 14

Aims:

To encourage pupils to consider the ways in which those affected by disasters prepare and cope with the situation.

What to do:

Download and photocopy each of each of the following so that you have enough for each pair of pupils to share one:

- Information on cyclones in Bangladesh (below)
- Worksheet: a cyclone shelter in Bangladesh (below)
- Borhan Uddin's story (below)
- Salema Khatun's story (below)

Give each pair of pupils the 'Information on cyclones in Bangladesh' sheet to read. Ask them to think about what sort of shelter a community would need to protect itself against the effects of a cyclone.

Come back together as a group and consider their findings.

Now give pupils the worksheet and ask them to complete it in pairs. What changes would they make to the original ideas for a shelter discussed by the class?

Finally show them the stories of Borhan Uddin and Salema Khatun. Discuss what preparations are made by people in Bangladesh to protect themselves against cyclones.

Further activities

Design a poster that Borhan Uddin might use to encourage people to use cyclone shelters and tell them what to do to prepare for the storms.

Ask pupils to imagine that they are in Salema Khatun's position. A cyclone is on its way and they have only a very short time to prepare to leave their home. They do not know if it will stand up to the storm or not. What would they do to prepare? What would they take with them to the shelter? What would they have to leave behind? How does this feel? This could form the basis for written work in English.

Curriculum links:

England	Scotland	Wales
<p>Geography: - Analyse and evaluate evidence and draw and justify conclusions; study issues of topical significance; effects of environmental planning and management on people, places and environments; causes and effects of a hazard and human responses to it.</p> <p>Citizenship/PSHE: - How to empathise with people different from themselves.</p>	<p>Environmental Studies; Society: - Human-physical interactions. - Developing informed attitudes - interaction of people with their environment.</p>	<p>Geography: - Analyse and evaluate evidence and draw and justify conclusions; study issues of topical significance; effects of environmental planning and management on people, places and environments; causes and effects of a hazard and human responses to it.</p> <p>PSE: - Empathise with others' experiences and feelings.</p>

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Worksheet: Information on cyclones in Bangladesh

A cyclone is one of a family of tropical storms (also called hurricanes, typhoons, or whirlwinds) that develop over warm tropical oceans and have sustained winds of 64 knots (74 miles/hour).

Cyclones develop over warm oceans that are over 27°C in temperature. Water evaporating from the sea acts as a kind of 'fuel', producing the energy of a cyclone. In one day, the energy released by a cyclone is at least 8,000 times more than the electrical power generated each day in the USA.

Not only are the winds dangerous but they blow on the water, creating the problem of storm surges and huge waves. Water can rise as high as thirty feet and floods can occur up to 30 miles inland.

Cyclones destroy people's livelihoods. In 1991, 1 million cattle were killed and 380,000 hectares of crops were destroyed.

Most people in Bangladesh live in houses built from local materials. Although these are well suited to local conditions, they do not stand up to cyclones. When cyclones occur people move to community cyclone shelters, taking with them a few belongings and some food.

By 1994 there were 500 cyclone shelters built in Bangladesh. In the major cyclone that year, 750,000 people were moved to safe places and there were far fewer deaths than in previous cyclones.

People usually seek shelter for a short time and return to their homes as soon as the strongest winds have passed.

A cyclone shelter costs approximately £45,000 to build. That's a lot for Bangladesh to afford because the country does not have enough resources to provide for all its people's needs.

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Worksheet: A cyclone shelter in Bangladesh



This picture shows a cyclone shelter in Bangladesh. It has a number of special features. With a partner fill in the boxes below.

Special feature:	Reasons why the shelter might be built like this:
Shelter built on concrete pillars	
Windows have no glass and are covered with bars and metal shutters	
Stairs are located at the back of the building, with railings to hold on to	
The building is a triangular shape	

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Worksheet: Borhan Uddin

Borhan Uddin shows us a cyclone shelter

"I have worked for 21 years as a Team Leader on a cyclone preparedness operation.

This cyclone shelter was built in 1992. It is used by people who live within about five kilometres of here. It is open to anyone who wishes to come.

As you can see, this shelter is definitely the strongest building in the area! It is made from solid concrete and its foundations are 11 feet deep. The rooms upstairs rest on strong concrete pillars. Sometimes in a cyclone there are huge waves of water. In this shelter, the water rushes underneath the building and people stay protected above.

The shelter is shaped like two sides of a triangle, facing into the wind. To come in everybody climbs the staircase at the back. It's slightly more sheltered from the wind there. Railings help people climb if winds are very strong.

Upstairs there are two large rooms -- one for men, and another for women and children. There are bars on the windows, and metal shutters, but no glass in case it breaks. There is a water supply and toilets, but these are downstairs.

Last year the cyclone shelter was used three times when there were cyclone alerts -- once in May, and twice in November. Luckily these cyclones did not actually strike this area. The last to actually hit was on 29th April 1995. Seven hundred people sheltered here. They started to arrive at about 5pm and the cyclone hit at 10pm. It was at its most serious at 1am and people started to go home the next morning. Only the older, or injured people stayed on. Because people knew about this shelter and could take refuge here, only 12 people in the area died during that cyclone.

When the cyclone shelter is not being used to provide safety, it is used for other purposes. Some are used as schools. This shelter is used as a public space where marriage ceremonies can be conducted, or disputes settled. It is also used as a vaccination centre for children."

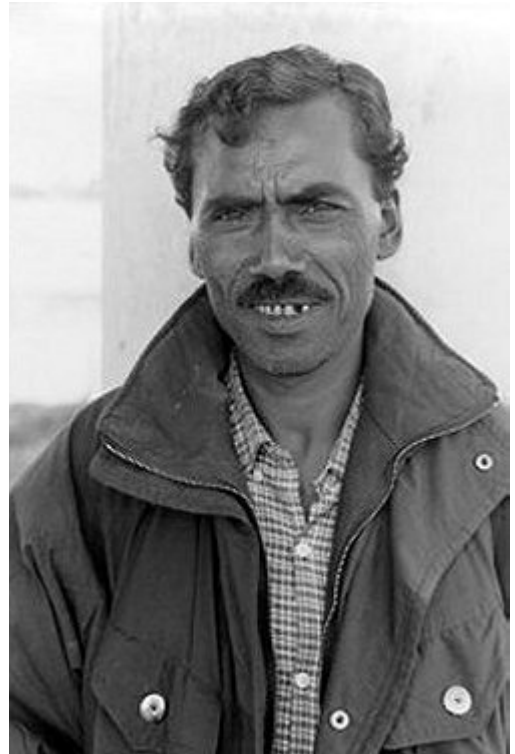


Photo: Shafiqul Alam/Oxfam

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Worksheet: Salema Khatun

Salema Khatun has used a cyclone shelter

"We live very close to a cyclone shelter. We use it once or twice a year when we hear the grave danger signal. Last November was the last time. We have a transistor radio so I can always listen to what is happening with the weather patterns. Warnings of cyclones are pretty regular, but it is not clear where they are going to strike until much later.



Photo: Shafiqul Alam/Oxfam

One day last November there was a chilly wind. It gradually grew stronger. We heard the warning on the radio that those living in low-lying areas should go to safe places. There were also people moving from village to village with megaphones telling people what to do to get prepared.

I buried our valuable belongings in a big pot which I covered in polythene, I also buried a pot of clean drinking water. Something which is buried can't be destroyed by high winds and water. I tied down my bed in the house and wrapped our quilt and blanket in polythene. I also tied up all our animals and secured the house by tying it to strong poles in the ground. Then I packed some dried food and we all went to the cyclone shelter. We couldn't take much with us, as it gets very crowded.

The wind grew very wild and hammered on the shutters. We couldn't see anything outside, but heard the howling storm. As we sat and waited, we talked about what was happening. We worried about our relatives and about what would be happening to our houses. Would we come home to find that our houses had been blown away? What would we have left?

By the time the sun rose, the wind had died down. We were lucky this time because the cyclone had not hit our area directly. We nervously came down the stairs of the shelter and began to hurry home. Our roof had been blown off and several of our trees had been uprooted and destroyed. Luckily our animals had all survived.

People really help each other during these times. We share information and if people are old or sick, or if they have small children, we help them get their houses ready and take them to the shelters."