

## Adaptations in the regions: Teacher notes

These resources now look at the adaptations to the problems of climate change in the 3 regions.

Pupils should initially again be split into regionally focussed groups (suggested size is four) to work through them firstly:

- The adaptations (4 examples in each region)
- Evaluating adaptation strategies

At this point, it is advised that pupils are split into groups with one representative from each region in each group, to compare the experiences. The activities to be used in these new groups are:

- Comparing different regions
- The barriers to adaptation
- Why does this matter
- What else could be done

## Plenary activities

The vulnerability line (resource 5.8) can be used as a plenary activity.

The video clip may also be used as a plenary activity, as outlined in the Teachers Guide

## Adapting to Climate Change: Caylloma (Arequipa)



### ***1 – Alpaca Breeding Program 46937***

Gabino Llallacache shows the quality of the wool on one of his family's alpacas.

The family has benefited from a breeding programme supported by Oxfam America, which has given their alpacas a uniform colour and, hence, a higher market value. The alpacas have also benefited from new pastures and sheds, which protect them from extreme cold.

## Adapting to Climate Change: Caylloma (Arequipa)



***2 – Clover plantations 46948***

"Four years ago, we planted clover here with the support of this project. It's very important for the animals as the alpacas like the clover, and it makes good milk for the babies. We've also built walls to protect growing pastures from the alpacas. When there was no clover, the babies used to die and the animals were weak. Now the animals aren't weak any more. We are also starting to irrigate the land. We've built reservoirs and canals, as it is important to bring water to the pastures. We don't have rain often, and we are thinking about building more reservoirs for irrigation, so we can grow more pastures."

Donato Chipa. Alpaca herder, Cucho Capilla, Caylloma 46926

## Adapting to Climate Change: Caylloma (Arequipa)



### ***3 – Sheds for the Alpacas 46924***

The Huamani family stand outside one of their alpaca sheds. The family has benefited from the programme implemented by Oxfam America. His alpacas are protected from the cold by newly built sheds; he is aware of extreme weather events through an early warning network; and they are making better use of the scarce water supplies with reservoirs and canals

Magno Huamani: "When it's cold our animals used to have abortions and get pneumonia. But now the animals are stronger, and they can cope. We've had this shed for two years, and it protects the animals. It protects the babies from the rain, so they don't get diarrhoea, and they don't die as much as they used to. The babies used to just sleep out in the water overnight, now they can sleep on dry ground."

## Adapting to Climate Change: Caylloma (Arequipa)



### ***4 – Early Warning Weather Reports 46917***

Justin Ccallacsca, 26, and his wife Lisa Angelica Sisa Morochara, 24, works the early warning system, Jachana, Caylloma.

Justin: "We have two thermometers, with maximum and minimum temperatures, and we have a rain meter as well. I measure at 7.00 am and 7.00 pm every day, and report this to Caylloma district through the radio. The information is used to forecast the weather for the region, and helps to alert people."

## Task: Evaluating adaptation strategies

After you have read through the adaptation strategies, read back through each of the adaptation strategies, and using *two colour pens/pencils* **underline or circle**:

- a. Details of what the local community has **done** to adapt
- b. Things which tell you how **successful** it has been

Adaptations undertaken	Success of these strategies

## **Task: Compare your ideas to what they have done**

Now compare the six ideas YOU had for what the local community could do, with adaptations you have read about and put in your table

To do this, on the table you made about adaptations and their success, **tick** any ideas that you had already come up with in your groups

## Task: The barriers to adaptation...

Did you think of any actions that the local community has not done?  
Is there more they could do? Are there things which may be **outside of their control**?

In your group, use the **development compass – barriers to adaptation** to discuss and write down what the **barriers** for adaptation might be.

Remember to use the **4 categories** of nature, economy, society and who decides...

(Source: The Development Compass Rose, Development Education Centre, Birmingham, 1995)

### ***When you have finished***

Compare your ideas to a group who looked at a different region.

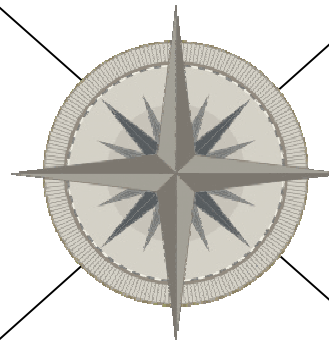
See if you can help each other come up with more, or give more details about those you have. Think about what things might prevent them.

Then feed back ideas as a **whole class**.

*The Development  
Compass Task –  
The Barriers to  
Adaptation...*

North = **Nature**  
environment  
constraints

West = **Who Decides**  
problems to do with  
politics and power



East = **Economic**  
constraints from  
livelihoods or income

South = **Social**  
constraints  
from people /  
communities

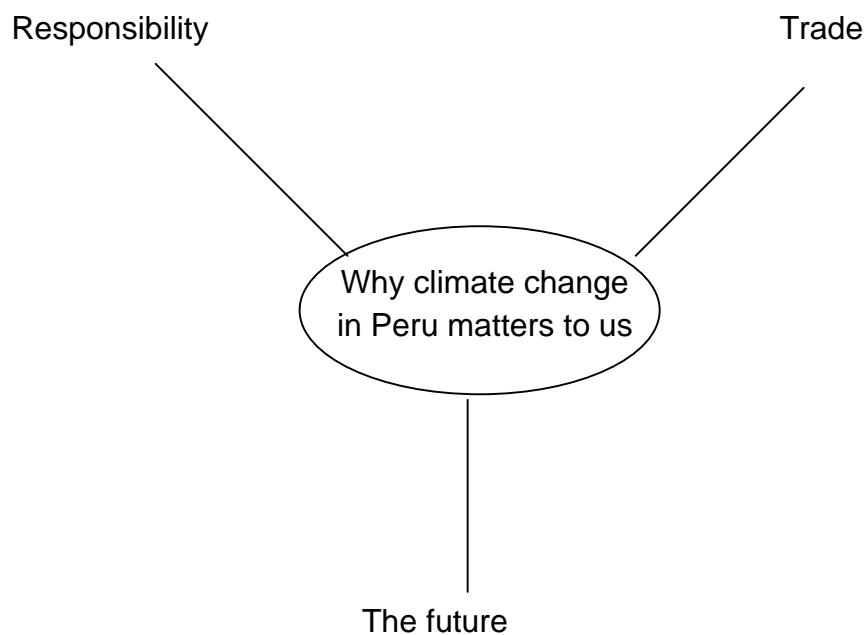


## Task: Why does this matter?

You have learnt about how people in different parts of Peru are being affected by climate change, and how they have responded to this.

But why is this important to you?

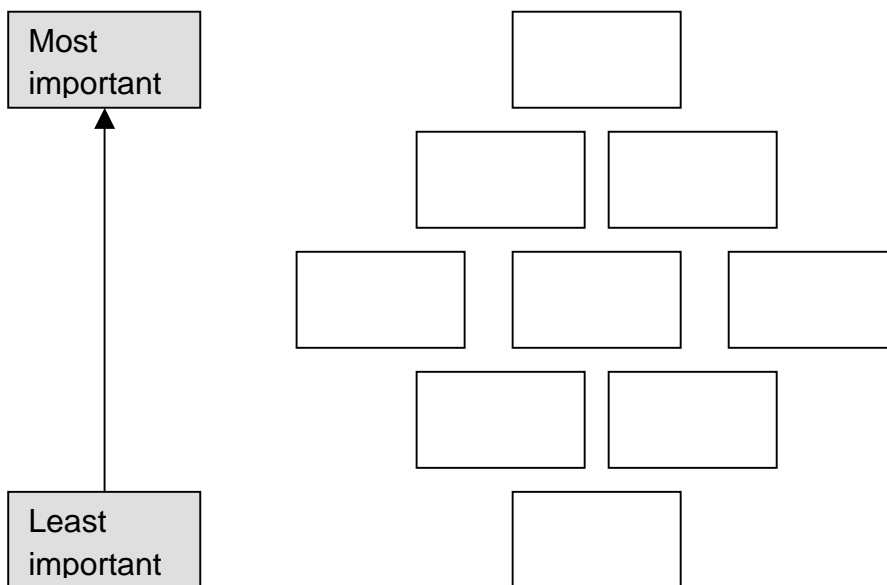
As a class, have a discussion about the ways in which this issue is important. You could use a spider diagram such as the one below to help you.



## Task: What else should be done?

The fact that people in Peru are already experiencing dramatic changes in their climate, and the impact it is having on their livelihoods, illustrates the importance of climate change as an urgent global problem which requires action.

Look at the 9 cards and put them into a hierarchy diamond (like below), to show which actions you think are the most important, and which are the least.



Raise money to give to local communities affected

Political pressure to support affected communities

Political pressure to agree greater limits on CO2 emissions globally

Using less energy at home

Building more alternative energy systems (e.g. wind turbines)

Campaigns to show solidarity with affected communities

Campaigns to pressurise the UK government to limit CO2

Send food and clothes to the affected communities

Experts to help local communities develop adaptation measures

