

# Adapting to Climate Change

## Learning Objective:

- **Discover** how climate change can be managed by adapting to changes



# Learning Outcomes:

- **Describe** how agriculture (farming) can adapt
- **Analyse** strategies to manage water supply
- **Assess** how the Maldives are reducing the risk from rising sea levels

*\*All these are responses to changes caused by climate change\**



# How can farmers adapt to the possible impacts of climate change?

Introducing drought-resistant strains of crops



Educating farmers in water harvesting techniques

Shade trees can be planted to protect seedlings from strong sunshine

New cropping patterns can be introduced, e.g. changing planting/sowing dates

[Irrigation using solar power - Kenya](#)

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Planting drought-resistant crops. As a result, in times of dry and hot weather, a farmer can produce a crop yield for his/her family or to sell in a local market.

In the UK, a warmer climate might see more of these...?

[Vineyards UK](#)







Himalaya map



# Painting rocks - Peru

## Artificial glaciers - India



Explain how the artificial glacier project works.  
Think why it is needed and the benefits of it.



### ***Managing rising sea levels in the Maldives***

The Maldives are a group of tiny islands in the Indian Ocean some 500km south-west of India. The highest point on the islands is just 2.4m. Some climate models suggest that the islands may be uninhabitable by 2030 and submerged by 2070.

The 380000 inhabitants have a very uncertain future as sea levels rise.

Restoration of coastal mangrove forests – their tangled roots trap sediment and offer protection from storm waves

Ultimately the entire population could be relocated to Sri Lanka or India

Construction of artificial islands up to 3m high so that people most at risk could be relocated

Construction of sea walls – a 3m sea wall is being constructed around the capital Male with sandbags used elsewhere (as in this photo)

Building houses that are raised off the ground on stilts



[SL rise video](#)

# Describe examples of strategies used to reduce the impacts of sea level rise. (6 marks)

Managing the risk of rising sea levels:

- In the river deltas of the Bay of Bengal, people are moving from villages because of rising tides. Many have moved to slums in Dhaka.
- In Singapore breakwaters are being enlarged and raised on the low-lying man-made east coast. Barges carrying imported sand top up the beach, which is regularly breached by high tides. The height of all new coastal land developments must be 2.25 m (7.5 feet) above highest recorded tide level, a metre above the previous limit.