



GCSE

C112U20-1A



S24-C112U20-1A



WEDNESDAY, 5 JUNE 2024 – MORNING

GEOGRAPHY B – Component 2

RESOURCE FOLDER

This folder is for use with questions in Component 2.
This folder need not be handed in with your answer booklet.

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Figure 1 – A Map of Global Vulnerability to Desertification

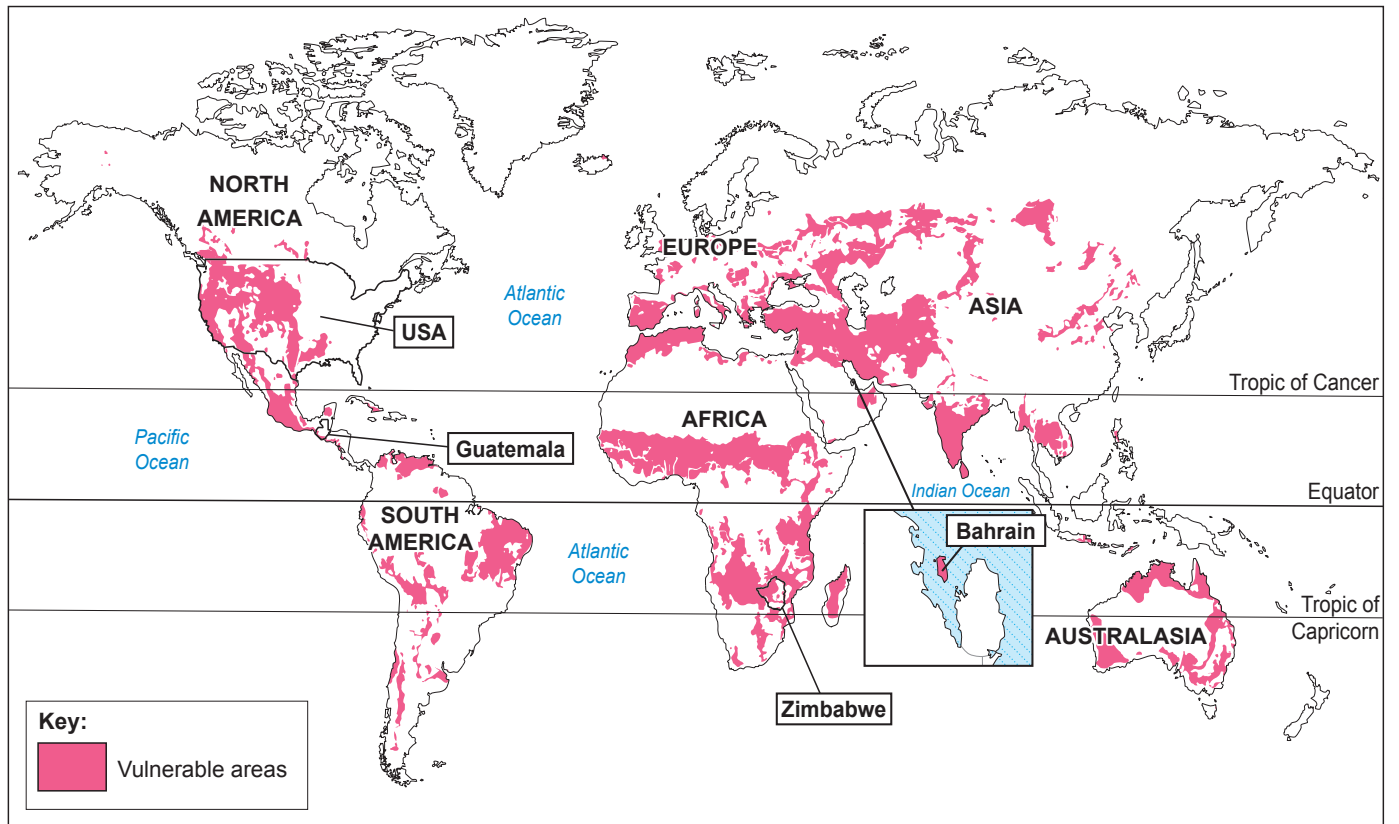


Figure 2 – Annual global change in forest coverage since 1990

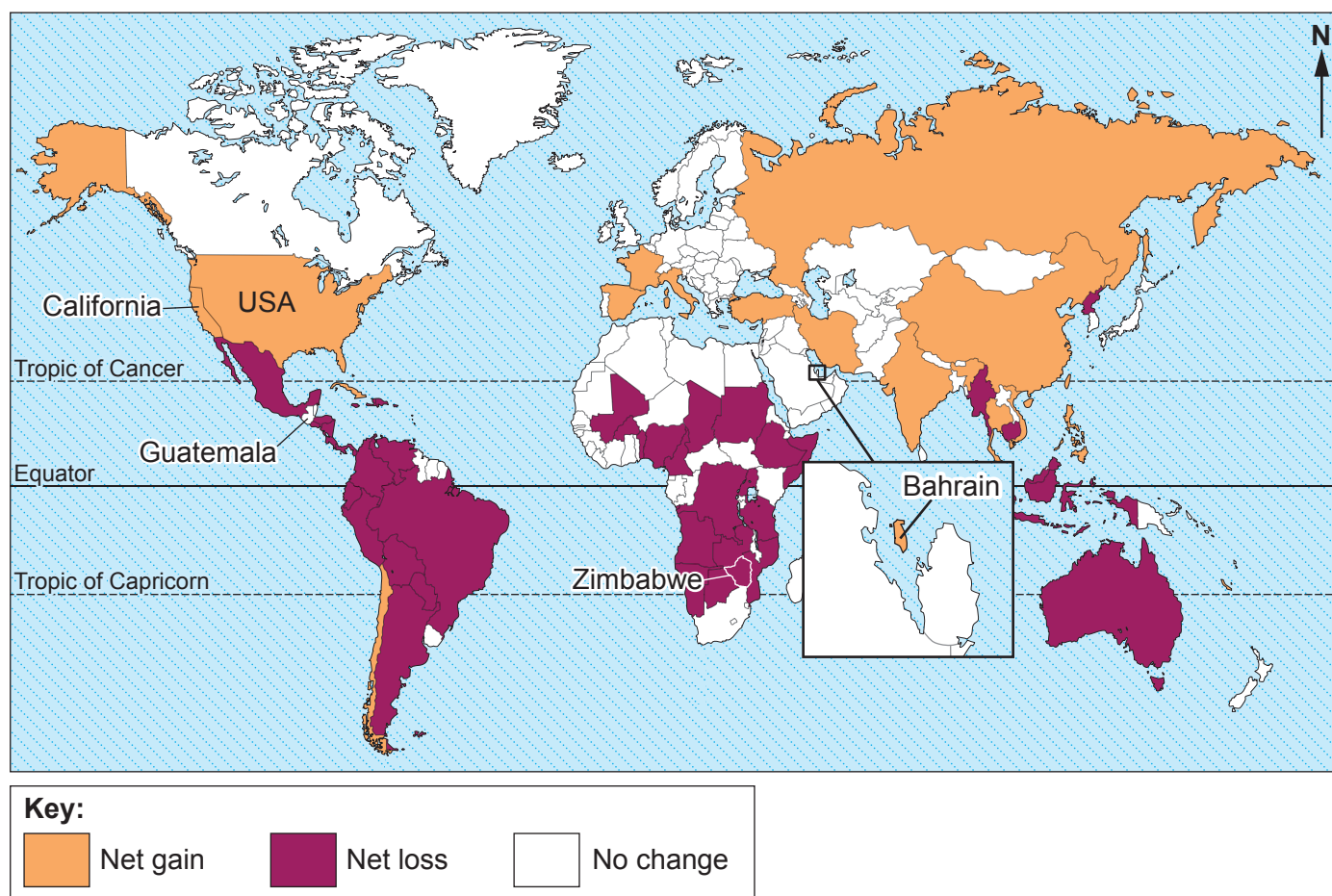


Figure 3 – Selected development indicators for four countries

	% of land covered by forest (2021)	% change in forest cover (2001 to 2021)	% of GNI earned from farming	% girls finishing primary education	GNI per capita (\$)
Guatemala	32.9	–21	9.43	82	9580
USA	33.9	–16	0.85	100	70480
Zimbabwe	45.1	–16	10.4	91	2380
Bahrain	0.9	+200	0.28	97	40730

GNI = Gross National Income

Figure 4 – Advanced farming technology in California, USA

https://californiamatters.org

To help them cope with drought, California farmers have been turning to science and advanced technology.

Some tools (such as satellites, drones and soil moisture sensors) which measure the evapotranspiration of an orchard have become more popular.

But growers have run out of quick, easy solutions. It can take a lot of time to develop new methods to grow plants using less water.

Many research projects to engineer drought-tolerant tree crops won't bring benefits for decades because fruit and nut trees need more than 20 years to mature.

Examples of advanced technology



Soil Moisture Sensor



Drone Technology

Figure 5 – Sand Dams in Zimbabwe, Southern Africa



STEP 1

A wall is built across a dry riverbed using local, cheap materials.

STEP 2

The dam traps sand behind it.

STEP 4

The water can then be pumped out and used to water crops using a solar pump.

STEP 3

When it rains, run-off is soaked up by the sand and stored.

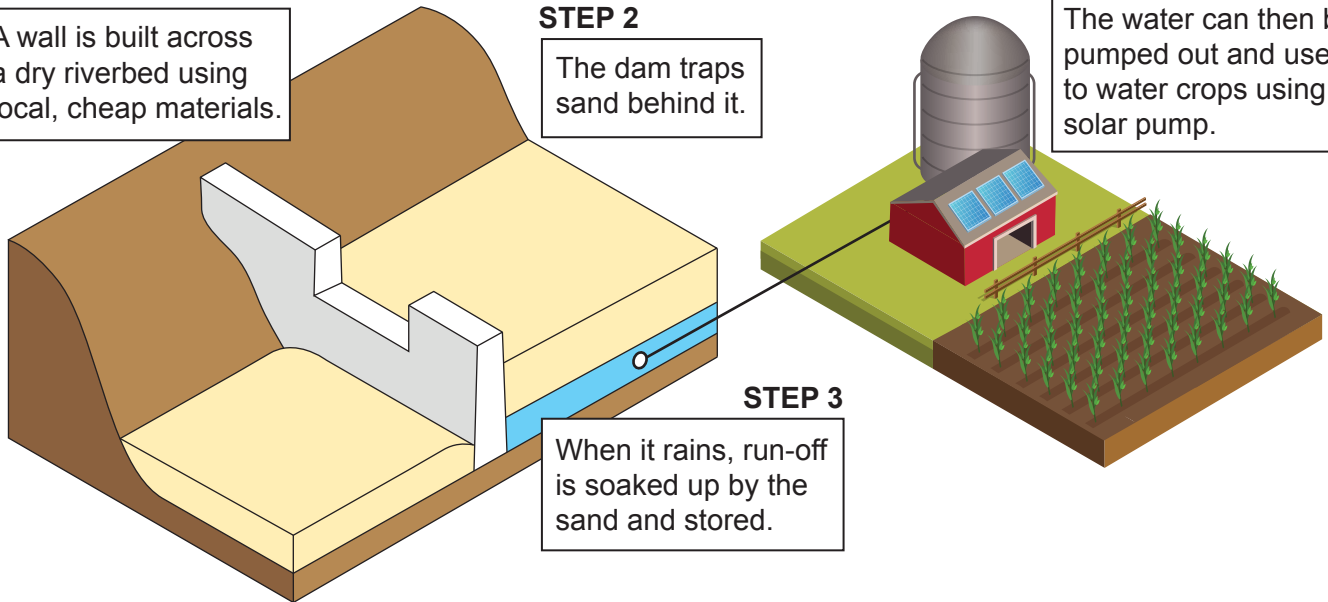
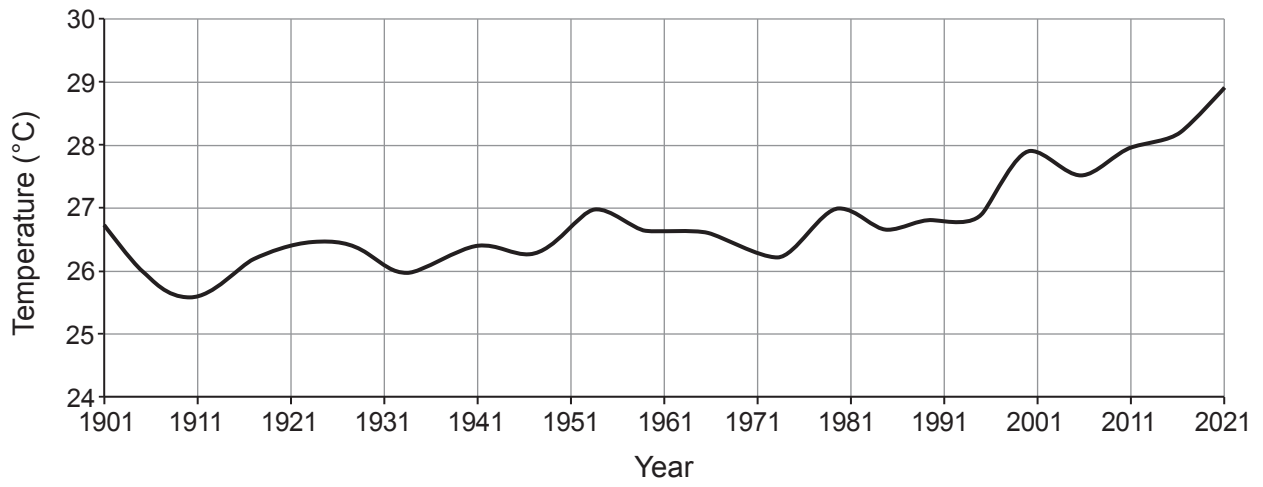


Figure 6 – Drought-tolerant crops in Guatemala, Central America



Figure 7 – Bahrain's average temperature 1901 to 2021



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