

Maintain a great biodiversity **Ensures** the stability of ecosystems

By reducing the dependence on one species on another for food, shelter, maintenance of the physical environment.

Future of human species

Many human activities are reduction biodiversity and only recently measures have been taken to stop it.

Human activity can have a negative impact on biodiversity



Pollution kills plants and animals which can reduce biodiversity.

Biodiversity

Biodiversity

Experimental methods are used to determine the distribution and abundance of a species.

Sampling techniques	Quadrats	Organisms are counted within a randomly
	Quadrats	placed square
	Transects	Organisms are counted along a belt (transect) of the ecosystem.

Processing data





Biodiversity and the effect of human interaction on the ecosystem

Rapid growth in human population and higher standard of living

Waste management

More resources used and more waste produced.

Pollution in water; sewage, fertiliser or toxic chemicals.

Pollution in air; smoke or acidic gases.

Pollution on land; landfill and toxic chemicals.

AQA GCSE ECOLOGY PART 3

Waste, land use and deforestation

Impact of environmental change (Biology HT only)



Land use

Humans reduce the amount of land and habitats available for other plants, animals and microorganisms.

Building and quarrying.

Farming for animals and food crops.

Dumping waste.

Destruction of peat bogs to produce cheap compost for gardeners/farmers to increase food production.

> The decay or burning of peat release CO₂ into the atmosphere.

changes affect the distribution of

Median

Mode

Mean

Temperature

Middle value in a sample.

Most occurring value in a sample.

The sum of all the value in a sample

divided by the sample number.

Availability of water

Composition of atmospheric gases

These changes might be seasonal, geographic or caused by human interaction.

Example: Several species of bird migrate from cold winter conditions to warmer conditions closer to the equator.

Large scale deforestation

In tropical areas (e.g. rain forest) has occurred to:

Provide land for cattle and rice fields, grow crops for biofuels.

Deforestation reduces biodiversity and removes a sink for increasing the amount CO₂ in the atmosphere. This conflicts with conserving peat bogs and peatlands as habitats for biodiversity and reduce CO₂ emissions.

