

# 9.10 Human Impacts on Biodiversity

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Name: \_\_\_\_\_ Class: \_\_\_\_\_ Date: \_\_\_\_\_

Total: 11 marks

## Objective

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Build the skills to answer exam questions on **human impacts on biodiversity**.

**You must be able to:**

- summarize how human activities reduce biodiversity
- explain why biodiversity loss matters
- describe solutions

## 1 Worked examples

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Study these first. Each one shows the method for a question type used later —follow the steps and you can do the Practice and Exam-style questions yourself.

### ■ The overall picture

Human activities —**habitat loss, pollution, overexploitation, invasive species, and climate change** —are driving a rapid loss of biodiversity, sometimes called a **sixth mass extinction**.

### ■ Why it matters

Biodiversity provides **ecosystem services** (food, clean water, pollination, climate regulation, medicine) and makes ecosystems **resilient**. Losing it reduces these benefits and destabilizes ecosystems.

### ■ Solutions

- **Protect and restore habitat** (reserves, corridors).
- **Reduce pollution** and greenhouse gases.
- **Sustainable resource use** (fishing, forestry, farming).
- **Laws and international cooperation**.

### ■ A worked reasoning

Protecting a large connected habitat conserves many species at once and maintains the services (like pollination and water filtration) that people depend on.

## 2 Practice

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Now apply the methods above.

**2.1** Name two human causes of biodiversity loss. [2]

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**2.2** State one reason biodiversity matters to humans. [1]

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**2.3** State one solution to biodiversity loss. [1]

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### 3 Exam-style questions

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**3.1** The current rapid loss of species is sometimes called the [1]

- **A** first mass extinction
- **B** sixth mass extinction
- **C** ice age
- **D** green revolution

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**3.2** A government wants to protect its biodiversity.

(a) Suggest two effective strategies. [2]

(b) Explain why protecting biodiversity also protects human well-being. [2]

**3.3** Explain why habitat protection is often the most effective single conservation action. [2]

### 4 Go further

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You are now ready for the real exam questions on this subtopic:

- work through the **9.10 Human Impacts on Biodiversity** lesson on the **Learn** page;
- read the **Human Impacts on Biodiversity** section of the AP Environmental Science handout on the **Know** page.

## Solutions

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**2.1** Any two: habitat loss, pollution, overexploitation, invasive species, climate change.

**2.2** Any one: ecosystem services (food, water, pollination, medicine), resilience.

**2.3** Any one: protect/restore habitat, reduce pollution, sustainable use, laws.

**3.1 B** —the sixth mass extinction.

**3.2** (a) Any two: protected areas/corridors, pollution reduction, sustainable resource use, laws. (b) Biodiversity provides essential services (food, clean water, pollination, medicine) and resilience, so protecting it safeguards the benefits people depend on.

**3.3** Protecting a habitat conserves all the species living in it at once, along with the ecosystem processes and services they support —far more efficient than saving one species at a time.