Exercise walk-through

The Tragedy of the Commons ▪ 5.1

eXercise

You must be able to

- explain the **tragedy of the commons 公地悲剧**
- give examples (overfishing, grazing, pollution)
- describe solutions (regulation, privatization, quotas)

Method — The idea

The **tragedy of the commons** occurs when a shared resource (open to all, owned by none) is **overused** because each individual benefits from using more, while the cost of depletion is shared by everyone.

Method — Why it happens

Each user gains the **full benefit** of taking more, but bears only a **small share** of the harm. So everyone takes as much as they can, and the resource collapses.

Method — Examples

Overfishing shared oceans, overgrazing common pasture, polluting shared air/water — all are commons problems.

Method — Solutions

- **Regulation** — laws limiting use.
- **Quotas** — caps on how much each can take.
- **Privatization** — giving ownership so the owner protects the resource.
- International agreements for global commons.

Practice 2.1 ▪ 1 mark

What is the tragedy of the commons?

Solution 2.1

Method: The idea

Worked steps

A shared, unowned resource is overused because individuals benefit from taking more while the cost is shared **B1**.

Practice 2.2 ▪ 1 mark

Give one example of a commons problem.

Solution 2.2

Worked steps

Any one: overfishing, overgrazing, air/water pollution **B1**.

Practice 2.3 ▪ 1 mark

State one solution.

Solution 2.3

Worked steps

Any one: regulation, quotas, privatization **B1**.

Exam-style 3.1 ▪ 1 mark

The tragedy of the commons happens because each user gains the full benefit but

- **A** bears the full cost
- **B** shares the cost with everyone
- **C** gains no benefit
- **D** owns the resource

Solution 3.1

Method: Why it happens

A bears the full cost

B shares the cost with everyone ✓

C gains no benefit

D owns the resource

Worked steps

B — shares the cost with everyone.

Exam-style 3.2 ▪ 2 marks

Fishers all take as many fish as they can from an open ocean.
(a) Explain why this leads to collapse of the fishery.
(b) State one solution that could prevent it.

Solution 3.2

Worked steps

(a) Each fisher gains fully from catching more but shares the cost of depletion, so all overfish and the stock collapses **M1** **A1**. (b) Any one: catch quotas, regulation, protected areas **B1**.

Exam-style 3.3 ▪ 2 marks

Explain how assigning ownership (privatization) can protect a shared resource.

Solution 3.3

Method: Solutions

Worked steps

An owner bears the full cost of overuse, so they have an incentive to use the resource sustainably to preserve its long-term value **M1** **A1**.