

# 5 Impacts and sustainability – Part 2

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

## Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

| English                   | 中文   | Write it 3 times (English) |
|---------------------------|------|----------------------------|
| Overfishing               | 过度捕捞 | _____                      |
| Urbanization              | 城市化  | _____                      |
| ecological foot-<br>print | 生态足迹 | _____                      |
| Sustainability            | 可持续性 | _____                      |

## Recall

In Part A you saw how using land can harm the environment. Now measure that impact and reduce it:

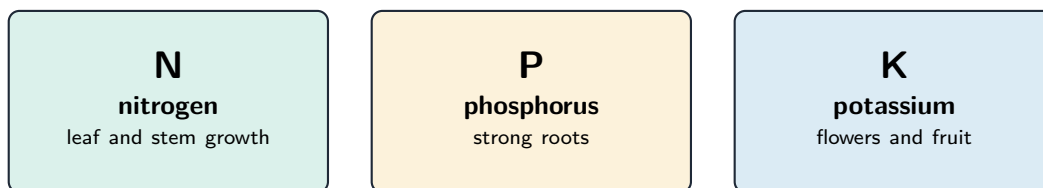
- Cities, mines, and fishing fleets all leave a mark on nature.
- We talk about living “sustainably” – using resources without using them up.

Each idea has a short worked example before the Practice.

## New ideas

### ■ 1 Impacts of using resources

- **Overfishing** 过度捕捞 removes fish faster than they can breed, collapsing stocks.
- **Mining** scars the land and can pollute water.
- **Urbanization** 城市化 covers land with roads and buildings, increasing runoff and pollution.



**NPK** fertilisers contain all three - ammonium salts and nitrates supply the nitrogen

## ■ 2 Ecological footprint

An **ecological footprint** 生态足迹 measures the land and water one person needs to supply their resources and absorb their wastes. Wealthy, high-consumption lifestyles have much larger footprints.

*Worked example.* Earth provides about 1.6 global hectares per person. If someone's footprint is 8 global hectares, it would take  $\frac{8}{1.6} = 5$  Earths if everyone lived that way.

## ■ 3 Sustainability

**Sustainability** 可持续性 means meeting today's needs without harming the ability of future generations to meet theirs – using resources no faster than they renew.

## ■ 4 Sustainable methods

Better practices reduce harm: **integrated pest management** (using natural predators plus minimal pesticide), crop rotation, sustainable forestry (replanting), and fishing limits.

**Watch out:** an ecological footprint is measured **per person**, so a small rich country can have a bigger total impact than a large poor one. Consumption per person, not just population, drives the footprint.

## Practice

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Try these in order. The methods are all above.

**2.1** Explain what overfishing is and why it is a problem. [2]

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**2.2** State one environmental impact of urbanization. [1]

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**2.3** An average footprint is 2.4 global hectares and Earth provides 1.6 per person. Find how many Earths would be needed if everyone lived this way. [2]

**2.4** State what “sustainability” means. [2]

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**2.5** Give one sustainable farming or fishing practice. [1]

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