



## ECOLOGICAL FOOTPRINT

<b>Time</b>	45–60 minutes
<b>Level</b>	intermediate
<b>Skills</b>	speaking, reading
<b>Knowledge goal</b>	raising awareness of people's impact on the environment
<b>Materials</b>	Ss' worksheet: p. S1 – a copy per student p. S2, p. S3 – infosheets A and B – one per pair

### 1 Lead-in

Draw or project pictures of different footprints – e.g. human, tiger, bird. Ask Ss where they might have seen them. Ask Ss for other traces of creatures' existence that could be found in nature. Focus on human traces and brainstorm the term "ecological footprint".

### 2 Main activity

- Distribute the worksheet p. S1 and ask Ss to read about the concept of ecological footprint (Ex. 1). Ss fill in the missing words. If necessary, preteach some vocabulary.
- Ask Ss to check the exercise in pairs.
- Ss in the same pairs answer the questions in Ex. 2. Check as a class.
- Make new pairs. Give one student Sheet 2 and the other Sheet 3 (p. S2–S3). They shouldn't show the handouts to each other. Tell them that these handouts will help them to calculate their own ecological footprints. They'll find there aspects from their life and corresponding points. Their task is to make a question for the partner and write down their point score in the Ecological Footprint Quiz (Ex. 3).
- After Ss have calculated their final score, tell them that the points represent global hectares and ask them to compare it to the area available that was mentioned in the reading (1.8 of productive area per person).

### 3 Follow-up – discussion

- Draw or project a picture of a globe. Ask Ss how many planets we would need if everyone lived like them.  
*Example: There is about 1.8 gha available per person, so if a student has a score of 3.6 points, it means that we would need 2 planets.*
- Ask a few Ss to draw their score expressed in the number of planets on the board. If there are big differences between the Ss' scores, you can ask about the differences in their lifestyles.
- Calculate the class average and the class total.

- Ask Ss to discuss different lifestyles and compare their impact on the environment. Ask them to think about an average person in their country.

*How much resources do they need? Do you think their ecological footprint is large?*

*Do you know anybody whose lifestyle leaves a very small ecological footprint?*

*Do you think that people's ecological footprints in other countries are similar to yours?*

- Ask Ss in small groups to do Ex. 4 and fill in the countries' average ecological footprints. Ask Ss to estimate which countries have the footprints provided. Check the answers as a class.
- Ask Ss which countries in the world (not only the ones from Ex. 4) they think have the biggest ecological footprint. Ensure that they realize that it is not only the average ecological footprint per person that counts, but that the total population plays a key role also. Refer to the class total and average.

**Answer:** The three countries with the biggest ecological footprint are the USA, China and India. Although the ecological footprint per person in India is only 0.8 gha, the population is more than one billion.

### 4 Follow-up

- Ask Ss to suggest ways of reducing their ecological footprint in three areas – home, city, school/workplace.
- Divide students into three groups and ask one to write down suggestions for a different place – home, city, school/workplace. They can also make instructive posters.

### 5 Ideas for homework

- A. Ss do research on the Internet. Ask them to find suggestions for reducing eco footprints.
- B. Ss find out what carbon footprint is.

## KEY

### Ex. 1

1. wood, 2. transport, 3. emissions, 4. necessary, 5. expressed, 6. productive, 7. developed, 8. measure.

### Ex. 2

1. Yes, everybody on this planet has one.
2. Yes. What matters is the material and its growth/production, the place of production, how many kilometres your clothes have travelled to get to you.
3. It means that for your lifestyle you need a lot of resources. For example you use a lot of water, food, clothes, electricity, or you travel a lot by car or plane. However, it also reflects things that people usually don't see – e.g. buying products which are produced/grown abroad and which then travel all around the globe to your country, supermarket, office etc. This results in higher consumption of oil and emissions.
4. 2.3 hectares.

### Ex. 4

United States – 9.57 ha  
Nigeria – 0.8 ha  
China – 1.5 ha  
Czech Republic – 4.8 ha  
Chile – 3.1 ha  
Austria – 4.7 ha  
Bangladesh – 0.5 ha  
Australia – 7.7 ha.





**1 Read the text and fill in the missing words**

productive    necessary    wood    developed  
 measure    emissions    transport    expressed

An ecological footprint shows how much productive land you need to lead your lifestyle. This includes your consumption of food, \_\_\_\_\_ (1), and fibres. The ecological footprint also reflects where you live, how much energy and fuel you need, what means of \_\_\_\_\_ (2) you use. Pollution, such as carbon dioxide \_\_\_\_\_ (3), is also counted as part of the footprint. The larger your footprint is, the more resources are \_\_\_\_\_ (4) to support your lifestyle.

The ecological footprint is \_\_\_\_\_ (5) in global hectares (gha) or acres. 1 gha = 2.47 acres. Globally, there are about 1.8 hectares of \_\_\_\_\_ (6) area per person, but the average ecological footprint is already 2.3 hectares.

The Ecological Footprint Quiz was \_\_\_\_\_ (7) in 2002 with Earth Day Network to provide a simple way for people to \_\_\_\_\_ (8) their impact on the earth.

**2 Answer the following questions in pairs**

1. Do you have an ecological footprint?
2. Does what you wear impact on your global footprint?
3. What does it mean if you have a large ecological footprint?
4. What is the average ecological footprint today?
5. How large do you think your footprint is? Is it above or below the average?

**3 Calculate your own ecological footprint**

	Points						Total
Food Footprint	1		2				
Goods and Services Footprint	3			4			
Housing Footprint	5	6	7				
Mobility Footprint	8	9	10	11	12	13	
Ecological Footprint							

Adapted from: <http://www.earthday.net>

**4 Try to work out each country's average ecological footprint per person**

4.8 gha    9.57 gha    0.5 gha    7.7 gha  
 1.5 gha    3.1 gha    0.8 gha    4.7 gha

United States	
Nigeria	
China	
Czech Republic	
Chile	
Austria	
Bangladesh	
Australia	

## Ecological Footprint Quiz – A

You and your partner have half the footprint data each. Use them for discussion so you can complete the table Ex. 3 after you have filled in all 13 boxes, add up your total ecological footprint.

### 1. Food Footprint

Eating animal based products (beef, pork, chicken, fish, eggs, dairy products):

- Never (vegan) 0.1 points
- Infrequently (no meat, eggs/dairy a few times a week, vegetarian) 0.2 points
- Occasionally (no meat or occasional meat, but eggs/dairy almost daily) 0.3 points
- Often (meat once or twice a week) 0.4 points
- Very often (meat daily) 0.5 points
- Almost always (meat and eggs/dairy in almost every meal) 0.6 points

### 3. Goods and Services Footprint

Electricity in your home:

- No electricity 0 points
- Electricity 0.8 points
- Electricity with energy conservation and efficiency 0.4 points

### 5. Housing Footprint

The size of your home in square metres:

- Larger than 200 4 points
- 130–200 3 points
- 90–130 2 points
- 60–90 0.4 points
- 30–60 0.2 points
- Smaller than 30 0.1 points

### 7. Housing Footprint

Housing type:

- Free standing house with running water 3 points
- Row house or building with 2–4 housing units 0.5 points
- Multi-storey apartment building 0.4 points
- Green-design residence 0 points
- Free standing house without running water 1 points

### 9. Mobility Footprint

Number of km travelled by car/motorbike/bus each week – as a driver or passenger:

- more than 130 3 points
- 50–130 1.5 points
- 25–50 0.6 points
- 1–25 0.3 points
- 0 0 points

### 11. Mobility Footprint

Getting around by bicycle, walking, or using animal power:

- Most of the time 0 points
- Sometimes 0.2 points
- Seldom 0.4 points

### 13. Mobility Footprint

Number of hours flown each year:

- 100 6 points
- 25 3 points
- 10 1 points
- 3 0.5 points
- 0 0 points

## Ecological Footprint Quiz – B

You and your partner have half the footprint data each. Use them for discussion so you can complete the table Ex. 3 after you have filled in all 13 boxes, add up your total ecological footprint.

### 2. Food Footprint

Eating processed, packaged and imported food:

- Most of the food I eat is processed, packaged, and from far away 0.5 points
- Three quarters 0.4 points
- Half 0.3 points
- One quarter 0.2 points
- Most of the food I eat is unprocessed, unpackaged and locally grown 0.1 points

### 4. Goods and Services Footprint

Waste you generate compared to people in your neighbourhood:

- Much less 0.3 points
- About the same 1 points
- Much more 3 points

### 6. Housing Footprint

Number of people in your household:

- 1 6 points
- 2 2.5 points
- 3 0.6 points
- 4 0.5 points
- 5 0.4 points
- 6 0.2 points
- 7 0.1 points

### 8. Mobility Footprint

Travelling on public transport each week (bus, train, underground):

- More than 300 km 4 points
- 100–300 km 2 points
- 50–100 km 0.6 points
- 1–50 km 0.3 points
- 0 km 0 points

### 10. Mobility Footprint

Number of km travelled by car/motorbike/bus each week – as a driver or passenger:

- more than 500 8 points
- 300–500 4 points
- 150–300 2 points
- 50–150 1 points
- 2–50 0.3 points
- 0 0 points

### 12. Mobility Footprint

Your car consumption per 100 kilometres:

- Fewer than 4.5 litres 0 points
- 4.5–6.5 litres 0.1 points
- 6.5–9 litres 1 points
- 9–15 litres 2 points
- More than 15 litres 4 points

