



Ecological Footprints



“Overshooting” Ecological Resources

About 1.8 hectares of functioning ecosystem are available per person in the world. However, the average person has an ecological footprint of about 2.2 hectares. In this activity, you will calculate the percentage by which people in the world and people in various nations are using more than the resources available per person.

- To find the percentage by which people in the world are “overshooting” available resources, use the steps shown below.

| | |
|---|----------------------------------|
| Step 1 Find the difference between the number of hectares required per person and the number of hectares available per person. | $2.2 - 1.8 = 0.4$ hectare |
| Step 2 Write a ratio that compares the difference found in Step 1 to the number of hectares available per person. | $\frac{0.4}{1.8} \approx 0.2222$ |
| Step 3 Write the ratio as a percentage, rounding to the nearest tenth. | $0.2222 = 22.2\%$ |

1. For each nation listed in the table below, calculate the difference between the ecological footprint, or the number of hectares required per person, and the number of hectares available per person. Write your answers in the third column.

| Nation | Ecological Footprint (hectares per person) | Hectares Required Minus Hectares Available (per person) | Percentage Over Hectares Available (per person) |
|---------------|--|---|---|
| Bangladesh | 0.5 | | |
| Colombia | 1.3 | | |
| Mexico | 2.6 | | |
| Sweden | 6.1 | | |
| Thailand | 1.4 | | |
| United States | 9.6 | | |

Data from *Living Planet Report 2006*. WWF International, Zoological Society of London, and Global Footprint Network.

2. Which nations have an ecological footprint greater than the resources available per person? _____
3. By what percentage are these nations “overshooting” available resources? Round your answers to the nearest tenth and add them to the fourth column in the table.