

# Course Work Activity 1 - Your Ecological Footprint

**Work must be titled 'Coursework 1 - Ecological Footprint'. All graphs must be titled and have both their axis labeled. Answer the questions in full and make sure that your explanation is thorough. Be sure to show all your work (calculations); a single numerical answer is not acceptable.**

**Aim:** to explore the concept of ecological footprints and examine how lifestyle may influence the resources of the world.

**Definition:** Organisms require resources from the ecosystem to exist. Resources are expressed as an area of the planet that supplies them each year.

This is an example of a "systems analysis" that helps us to understand the many connections between our behavior and our dependency on the environment.

1. Online ecological footprint calculator.

Answer the questions from the web site  
<http://www.myfootprint.org/en/>  
in 3 different ways:

- (i) your present lifestyle
- (ii) a 'green' lifestyle
- (iii) an 'excessive' lifestyle



Make a bar graph of the TOTAL ECOLOGICAL FOOTPRINT (acres) for your three 'lifestyles' (do not split them into carbon, food, housing, goods).

2. Download the 'Ecological Footprint Spreadsheet'.

This calculator allows for more flexibility in your lifestyle choices. Determine which factor is the most important in the calculation of your Ecological Footprint: Diet, Travel, Energy use, or Recycling. Show data to support your conclusions and provide some discussion about this. Is this realistic? What questions, if any, are missing? Not needed?

(Please note that I do not require this spreadsheet to be handed in).

3. The average ecological footprint of the American citizen is 9.6 hectares (1 ha = 0.01 km<sup>2</sup> = 2.5 acres), for the average Dutch person it is 3.8 hectares, and for the average Indian it is 0.8 hectares.

Make a bar graph of the 'Per Capita Ecological Footprint' (hectares of land per person) and another bar chart of the 'Total Ecological Footprint' (hectares) for all three countries.

4. Is India's total ecological footprint greater than the Netherlands? Why?
5. What is the percent difference between humanity's ecological footprint and Earth's ecological capacity? What will happen if humanity's ecological footprint continues to be greater than Earth's ecological capacity?