Extra Credit – Calculate Your Carbon or Water Footprint

APEC100

CHOOSE ONE FOOTPRINT TO CALCULATE

CARBON FOOTPRINT

To address concerns regarding global warming, a variety of websites have been developed that can calculate your carbon footprint. These websites make their calculations on a variety of factors including where you live, what you eat, how far you drive, and how often you travel.

Your Activity Form should include a summary of the results that you find after you calculate your carbon footprint on ***all three*** of the following websites:

- http://www3.epa.gov/carbon-footprint-calculator/ (US Environmental Protection Agency)
- https://gozero.conservationfund.org/calc/household (The Conservation Fund)
- www.nature.org/greenliving/carboncalculator/index.htm (The Nature Conservancy)

Explain the main results of the calculations and which of these results you consider most accurately reflects your true annual carbon footprint.

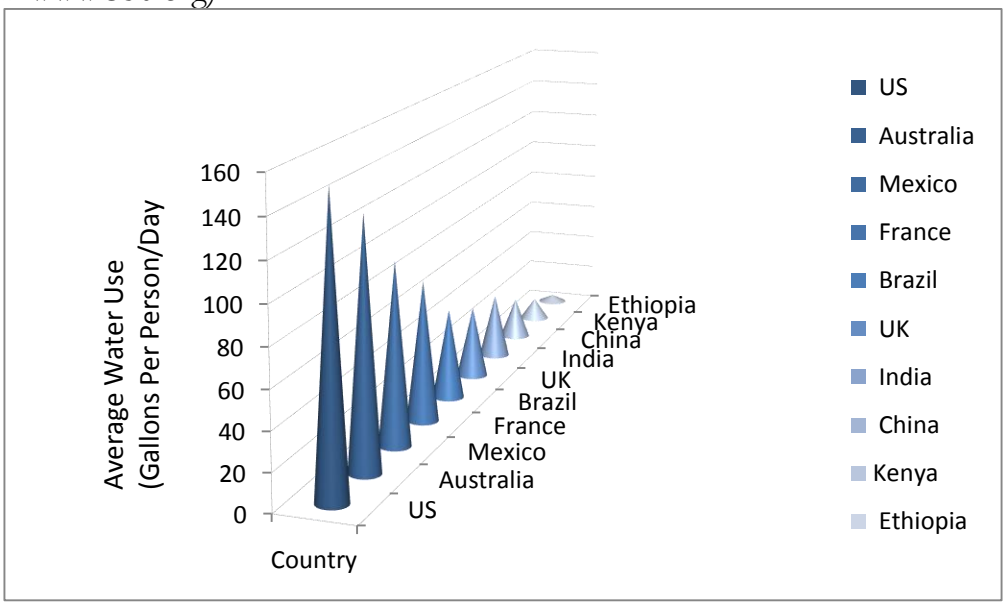
Based on these results, what are three actions that you could do to reduce your carbon footprint? Calculate how much these actions would reduce your carbon footprint. Finally, discuss how likely you may be to carry these actions into your life as you potentially have a family/partners/children. What are two potential reasons the actions may become difficult when you are no longer a student? Write or type summary and results on the Activity Form.

Submit via Canvas by due date.

WATER FOOTPRINT

It is amazing that the average per capita (per person) use exceeds 100 gallons of water per day in the United States! In contrast, countries around the world use far less (see figure 1) and some estimate that our true needs can be fulfilled by using only 13 gallons per day.[1]

Figure 1 Average Water Use per Person per Day in Select Countries
(data from www.350.org)



The challenge for the participants is to: 1) use an online footprint calculator to record how much water you use per day for one week and 2) challenge yourself to use less water for a second week.

Examples of how much household water is used with each fixture in a typical U.S. house:

Chart of Water Use by Fixture

Fixture	**Fixture Rate**
Non low-flow toilet (old)	6 gallons per flush
Low-flow toilet (new)	3.5 gallons per flush
Ultra low-flow toilet	1.6 gallons per flush
Regular shower head	3.8 gallons per minute
Low-flow shower head	2.3 gallons per minute
Bathtub filling	3.0 gallons per minute
Clothes Washer	40 gallons (average load)
Dish Washer	15 gallons average load
Faucet	3 gallons per minute

You not only use water directly but also "virtually." in your daily activities. There is water used to produce the food you eat and the clothes you wear.

[1] Robert Glennon, Unquenchable (Washington: Island Press/Shearwater Books, 2009) 229.

To address concerns regarding global water use, a variety of websites have been developed that can calculate your water footprint. These websites bring attention to one way you may use a resource and bring awareness to use. These websites make their calculations on a variety of factors including where you live and what you eat.

Your **Activity Form** should include a summary of the results that you find after you calculate your water footprint on at least three websites:

National Geographic Water Footprint Calculator — Take a water tour through your home, yard, diet, energy, and consumer choices! Then, pledge to cut your water footprint and help return more water to rivers, lakes, wetlands, underground aquifers, and freshwater species.

Water Footprint Network Water Footprint Calculator (in metric units)

The Alliance for Water Efficiency and the Field Museum Water Calculator — Home water conservation is easy once you understand how and where you can use less. This quick and easy water calculator shows you which water uses in your home are efficient and which are not and offers simple conservation tips that help you save water and energy.

Pacific Institute: WECalc, Your Home Water-Energy-Climate Calculator - Delivering water to your home requires energy, to bring it to your community and to treat it so that it is safe to drink. More energy is used to heat water and, after it's used, to move it and clean it at a wastewater treatment plant. WECalc asks you a series of questions about your home water use habits. Based on your replies, it estimates your water use and provides personalized recommendations for reducing that use. WECalc also estimates your water-related energy use and associated greenhouse gas emissions.

More water footprint calculators, including an app for your phone, can be selected here:

http://www.gracelinks.org/384/water-calculators-around-the-web

Explain the main results of the calculations and which of these results you consider most accurately reflects your true annual water footprint.

Based on these results, what are three actions that you could do to reduce your water footprint? Finally, discuss how likely you may be to carry these actions into your life as you potentially have a family/partners/children. What are two potential reasons the actions may become difficult when you are no longer a student? Write or type summary and results on the Activity Form.

Submit via Canvas by due date.