

Exercise 3.1 The Price of Green Consumption

Go to a grocery store or supermarket near you. Select four or five different types of products (for example: fruits, vegetables, packaged goods, meats, paper products, cleaners, etc.). Find a conventional version of this product as well as a “green” alternative. This may include an “organically” grown fruit or vegetable, a “free range” meat, “locally grown” produce, “green” or “eco-friendly” products, or products made from “recycled” or “recovered” materials, for

example. What is the price difference (per unit where appropriate) between the “green” and conventional versions of each product?

What is the average percentage increase in cost of the groceries if your “green” products are selected instead of conventional ones? The average American family of four spends \$8,500 per year on groceries (the average British family spends approximately \$6,300). Assuming your percentage increase is typical and that all conventional groceries have “green” alternatives, how much more would the average family have to pay for only “green” groceries? Who can afford to pay such extra costs for groceries?

What is the benefit from this extra cost? Why are “green” alternatives more expensive to produce? Where does the extra money spent on each product go? How would you know? Where would you go to find out?



Exercise 5.1 Pass the Bacon (or don't)



Considering the theories (as well as their critics) surveyed here, let us reexamine the opening story and ask the question: *Is factory farming a defensible practice?* Environmental ethics can be helpful in answering this question, but the answers that arise are far from simple or self-evident. Using books, magazines or the internet, find at least three arguments each from opponents and proponents of factory hog farming. Read the material and answer the following questions: *How much of their arguments are based in ethics? Which ethical arguments, are they based on ecological or animal rights grounds (or both)? What other factors enter into their support or opposition? Having read from both sides, what is your opinion?* Complete the exercise by writing a two-paragraph statement of opposition and support of this practice.

Exercise 6.3 Mapping Risk



Visit the World Resources Institute “Aqueduct” page, where risks of water stress are mapped in an interactive digital atlas (<http://insights.wri.org/aqueduct/atlas>). Explore the global maps they provide there. Specifically compare two different global maps: 1) the map of “Baseline Water Stress” (a map of the degree to which freshwater availability is an ongoing concern) and 2) the map of “Three Year Socioeconomic Drought” (a map of areas where available freshwater supplies are insufficient to support normal water withdrawals over a three-year period). To what degree is the risk of socioeconomic drought a close match to basic underlying water stress and scarcity? Where is the risk of drought less than underlying stress and where is it equal to or greater than basic stress? What might account for the differences you see here? What might cause drought risks to be higher or lower than basic scarcity of water? What might this tell you about environmental risks more generally? To what degree are they determined by basic environmental conditions and to what degree are they influenced by human factors?

Exercise 7.3 Mapping Environmental Justice

Visit EJView, a mapping website of the United States Environmental Protection Agency (<http://epamap14.epa.gov/ejmap/entry.html>). Experiment with the tool, by entering locations you might find interesting (your home town, your school). At these locations, you can toggle to display sites reporting to the EPA (like monitored Superfund sites), air quality and other emissions. You can also overlay demographics, including percentage of minority population, by census block group or tract. Experiment with these maps, especially examining percentage minority areas and hazardous Superfund sites. Do any patterns emerge that suggest environmental justice issues? If so, how do you think these patterns emerged? What other forms of evidence and analysis might you need to determine the presence or extent of environmental justice problems?



Exercise 8.3 What is Organic about Organic Food?



Consider the United States Department of Agriculture's official regulatory definition of organic food (<http://www.nal.usda.gov/afsic/pubs/ofp/ofp.shtml>). Notice in particular the insistence that "Organic food is produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation." Some have criticized this definition since it does not mean that the food was not raised on industrial farms by large agribusinesses, nor does it say anything about the health or safety of the people who work on organic farms. Writer Michael Pollan has called organics "The Organic-Industrial Complex" (<http://www.commondreams.org/views01/0603-03.htm>). Is "organic food" a discourse? If it is, what are its narratives, concepts, ideologies, and signifying practices? What makes up the discourse of organics? What work does it do?

References

Exercise 9.1 The Ethics of CO₂

In this chapter, we have reviewed how the puzzle of CO₂ might be addressed by markets, institutions, and political economy. Explain how you might understand this problem using an ethics framework (as described in Chapter 5). How might an anthropocentric approach differ from an ecocentric one? Do polar bears have intrinsic value? How might pragmatism and utilitarianism be employed to consider options for the control of carbon? What are the limits of an ethical approach to CO₂?

Exercise 9.2 Can You Do Better than the United Nations Framework Convention on Climate Change?

Outline an international climate treaty that would reduce emissions around the world to their 1990 levels. Things you will want to consider include whether stipulations will be the same for all countries, whether emissions or consumption of carbon is targeted, whether there will be trading or other kinds of flexibility, whether there will be monitoring or enforcement? How? Will offsets be allowed from forests or other efforts at sequestration? Once you have a sketch of what your treaty might look like, consider the following: What are the weaknesses in the treaty? What nations are more or less likely to sign on to your treaty? Why? What kinds of further compromises might be necessary to achieve a treaty that maximizes participation?

Exercise 9.3 Should Cities Think about Climate Change?

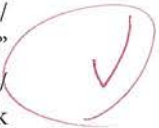
Visit and read the Climate Action Plan for the City of Seattle (http://www.seattle.gov/environment/climate_plan.htm). What kinds of steps does that city envision for itself? To what degree are their efforts directed toward reducing greenhouse emissions and to what



degree are they about adapting to change? Given this is a “global problem,” what motivates the city to address these issues at all? Do you think cities can make a difference in climate change, or is this something that requires a coordinated global action? Why or why not? What is the role of cities in governing climate change?

Exercise 10.2 Are Plantation Forests Useful Forests?

Compare information on plantation forests from *Sinkswatch* (<http://www.sinkswatch.org/plants.html>), an organization that “tracks and scrutinises carbon sequestration projects,” with information on plantations from *Green Resources* (<http://www.greenresources.no/company.aspx>), a company that manages plantations for carbon storage. Do you think plantation forests are a viable component of addressing global climate change (see Chapter 9)? What are the limits of plantation forests for replacing lost original forests? What advantages do they have over “pristine” forests, if any?



Exercise 10.3 Appreciating Trees

Exercise 11.3 Examining the Wolf Hunting Debate

As discussed in the opening of this chapter, since many wolf populations have recently been removed from the Endangered Species List, many US states have instituted legal hunting seasons on wolves. Several environmental groups (e.g., Defenders of Wildlife, Earthjustice) have been openly critical of the rush to hunt wolves and launched online activism campaigns opposing them. Find such a campaign on the web and summarize it *critically*. Explain the rationales used to oppose the hunts (Are they population-centered, based in ethical arguments, market-based economic arguments, etc?). Additionally, write about how wolves and nature in general are *socially constructed* to make their pleas work.



Exercise 12.1 Debating the Future of Nuclear Power

On the internet, find one pro-nuclear argument made from an institutional or markets perspective, and one anti-nuclear argument from an ethics perspective. Use credible sources (avoid personal blogs). Think critically about how the positions are justified. Having done this, imagine yourself occupying *both* sides of a fictional debate where the question posed is “Countries worldwide should work together to phase out nuclear power as quickly as possible.” Write two one-paragraph summary answers to this question (one “agree” answer and one “disagree” answer). Finally, write an explanation of which argument you think is stronger, and why.



Exercise 13.1 Eco-Labeling and Certification

Tuna are only one of countless products labeled for “green” or “sustainable” consumption. But who are the organizations that oversee the certification of these products? What procedures do they use? Where competing labels exist, how do they differ? Find an eco-labeled product and try your best to answer the following questions: 1) What does the label assure? 2) Have the characteristics of the product assured by the label improved or changed environmental practices of the companies making the product? What do the words on the label mean (for example: “natural”). 3) Who oversees that certification process; are they “third parties” (people or groups apart from the company)? 4) What procedures does the product undergo to claim the label and how is that confirmed?

Now consider the following: how much time and labor did it take for you to confirm (or deny) that the label in question is reliable and does what it says? What would it take to do so for all such products you consume, assuming you wanted to? How much *trust* must be placed in labels? Do you feel it is well placed?



able to people? When faced with competing claims about food-related risks (from internet sites, for example), what is the most rational way to reconcile them?

Exercise 16.2 Market Solutions for Agrodiversity?

In this chapter, we have reviewed how the puzzle of French fries might be addressed in terms of risk, ethics, and political economy. Starting from the notion that markets can be harnessed for social and environmental good (as described in Chapter 3), how might we understand this problem differently? Specifically, consider the problem of crop diversity. Read this short example of the case of rice varieties (<http://news.bbc.co.uk/2/hi/science/nature/7753267.stm>) and answer the following: Are there market opportunities or pressures that might increase, rather than decrease the numbers of varieties of crops in the world? To what degree is there unmet demand for other kinds of foods and food production systems? How might supply be unleashed?

Exercise 16.3 What Makes French Fries So Cheap?

... as a potato plant to its eventual destination in ... of production, trans-