Environmental Biology 206, 04 April 2005

- Exams Returned end of class
- Monday McPherson Lecture available for preview

for today:
- Text Chapter 14 (Economics, Environmental Justice, etc.)
- Ed Abbey reading
- Killing the Natives

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4. Oral Presentations (50 points)
27 April – 02 May 2005
This 5 minute presentation will allow you to share with your classmates the project you pursued this semester. The fact that you need to present using PowerPoint means that you could also have a PowerPoint presentation ready earlier to present to the decision makers that you have identified that could make your proposed changes happen. For the in-class oral presentation, you will pretend that your classmates are the audience that has the power to enact your proposal. Please also tell the class about the outcome of your proposal to relevant decision makers.

Your oral presentation should be used to explain and inform the material you are presenting visually via PowerPoint slides; don’t just read your slides, teach your slides. Each member of your group does not need to speak, but you all can if you wish. Just remember to practice your presentation so you know what to say and so you know how long it will take you. Practice with an audience (fellow-group members and other folks not familiar with your project). We suggest that you have your presentation on the PC in the lecture room (Haury 216) before the day of your presentation. We will time your presentation to make sure that you are not cutting into the time allotted another group. Our grading will be based on the effectiveness of your proposal (Did you convince us that this was an issue worth worrying about? Did you convince us that we should implement your proposed changes? Did you convince us that your proposed changes would work?), knowledge of the subject you are discussing, and the audio-visual contribution from your PowerPoint file. We will also evaluate your responses to questions from classmates.

Please get your PowerPoint presentation to KEB (kebonine@email.arizona.edu) before 5pm on the day of your presentation. A member of your group will need to be present in lecture at 8:45 a.m. on the day of your presentation so we can make sure that you know how to navigate through your slides using the computer. Also bring a one-page handout for each member of the class so they can follow the main points of your proposal and can also see some facts and citations in case they are interested in pursuing this topic further themselves.

5. Final Written Submission (75 points)
Due 04 May 2005
This portion of the assignment is a written document that includes your introduction, literature review and methods form above (including suggested improvements from instructors) AND also includes the results of your action plan and a discussion about the lessons learned and future research or action needed.

The results section should include:
- Quantitative and qualitative analyses of your project's impact
- Graphs, tables, and other visual representations of your data
- Which decision maker(s) did you give your final proposal to? What was their response? Were they receptive? Unreceptive? If they were unresponsive, what might you have done differently in the future to change this response? If they were receptive, what did you do right? Please include contact information for the decision makers you approached. The discussion section should include:
- What did you learn from this project?
- What action do you personally need to follow up on to enact lasting change?
- Are there further, more intensive or broad-scale actions that could be taken to make an even more positive change?

We look forward to great presentations and excellent projects. Thanks for your hard work! Hopefully your project will end up as a success story on one of the many web pages that we steered you toward earlier (e.g. http://www.nwf.org/campusecology/index.cfm).
Biosphere 2, Oracle Arizona

$200 million failure
This is Gabriel from your Ecol-206 class and here is a list of local organic food growers in the Tucson area with addresses, e-mail addresses (when available), and phone numbers.

   www.foodconspiracy.org
   no e-mail address available
3. 17th street Farmers Market: (520) 792-2588, 840 E 17th St, Tucson, AZ 85719
   no e-mail address available

These are all excellent local markets which support the community as well as environmentally-friendly practices like sustainable agriculture and organic farming practices. These stores benefit the community and the people who shop there. Each of these 3 stores is not a grocery store, but a tea shop. They carry a wide variety of teas, some with no caffeine, and others with caffeine.

4. Seven Cups Tea House: 2516 East 6th Street, Tucson, Arizona
   Opposite Rincon Market, five minutes from Downtown and the University District (520) 881-4072
   http://www.sevencups.com/tucson-tea-house.php

I hope these were helpful, and moreover that some people who read this check them out. Thanks for letting me do this.
Gabriel Loeb
Road deaths up a bit; SUV rollovers surge

WASHINGTON — Deaths on U.S. highways increased slightly in the 30 days to April 19, with sports utility vehicles and drivers from the Southwest sharply increasing their share of fatal crashes.

Despite efforts by regulators to boost safety laws, the number of lives lost in fatal crashes did not change significantly. The National Highway Traffic Safety Administration does not have reliable data on the number of fatalities that occurred in accidents involving SUVs.

Estimates by the National Highway Traffic Safety Administration showed that at least 1 percent of all motor vehicle fatalities, or about 1,000 deaths, were caused by SUVs. Most of the deaths were caused by rollovers.

Elaborated on deaths fell 2.1 percent, the annual rate of death deaths, but at 1.5 percent represented only 1 percent of the total number of deaths in 2004. But those killed in rollovers involving sports utility vehicles made nearly 7 percent of the total.

Environment advocates see movement losing steam

By Fred Singleton

The Environmental Protection Agency said it was not ready to consider new rules to limit emissions from vehicles, despite a coalition of environmental groups calling for tougher regulations.

The coalition said the agency had failed to act on a proposed rule to limit emissions from new vehicles, despite calls from environmental groups to require a 50 percent reduction in emissions by 2010.

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Polemic

National Parks and Monuments
Allegory for society, population growth, economics
<table>
<thead>
<tr>
<th>Table 3.3 Values: Medium-Miller Economics Generally Do Not Address</th>
<th>Brennan and Withgott 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic value</td>
<td>In the weeds we search for things . . .</td>
</tr>
<tr>
<td>Use value</td>
<td>that are useful directly</td>
</tr>
<tr>
<td>Option value</td>
<td>that are desirable but may not have been</td>
</tr>
<tr>
<td>Authentic value</td>
<td>for their beauty or emotional appeal</td>
</tr>
<tr>
<td>Cultural value</td>
<td>that are a part of our culture</td>
</tr>
<tr>
<td>Natural value</td>
<td>that may be the result of natural processes</td>
</tr>
<tr>
<td>Ecological value</td>
<td>that may exist on earth and sometimes even on another planet</td>
</tr>
</tbody>
</table>

Scavengers are key; we can't really throw things away.

Economic Growth?

Return to pre-neoclassical ideas

Ecological or Environmental Economics

Full Cost Pricing

e.g., CAR

Internal Costs

- factory, materials, labor, marketing, shipping, dealer
- gas, maintenance, repair, insurance

External Costs (not included in market place = Externalities)

- depletion of nonrenewable and energy and resources
- solid and hazardous waste
- water and air pollution
- land conversion
- global climate change
- biodiversity

EVERYONE PAYS

- health insurance and medical costs
- taxes for pollution cleanup
- loss of aesthetic beauty
- etc.

Need to internalize the external costs

(regulations, taxes, subsidies, awareness, price increases)
Wendell Berry
Orion 2004

Economic Violence

- Subsidies
- Coal, timber, agribusiness
- “tax incentives” to bring in industry

Herman Daly
Former Environmental Economist with Worldbank
Professor at U. Maryland

Utility vs. Throughput
Utility not measurable; it is an experience

Circulatory system vs. digestive system
(perpetual motion machine)

Wealth vs. Ilth (accumulation of goods vs. bads)

Micro vs. Macro economics
(MR=MC vs. endless)

If resources infinite then price = 0,
but if pay for resources then can redistribute wealth

Center for the Advancement of the
Steady State Economy

http://www.steadystate.org/Index.html

GNI - Gross National Income
(or per capita)

GDP - Gross Domestic Product
(or per capita)

GPI - GENUINE PROGRESS INDICATOR

- Harmful environmental effects
- Natural resource depletion
- Unpaid work/volunteerism
- Income distribution
- Environmental and Economic Justice

Vs. Positive 
DISCOUNT RATE
20% of the people have >80% of the wealth

20% of the people have <1.5% of the wealth

2002, MIT Press

GARBAGE WARS
THE STRUGGLE FOR ENVIRONMENTAL JUSTICE

GARBAGE WARS
THE STRUGGLE FOR ENVIRONMENTAL JUSTICE

2002, MIT Press

The Principlen of Environmental Justice

Appendix

The Principles of Environmental Justice

Tubs made of corn can go into compost

45
The United States Environmental Protection Agency defines environmental justice as 'the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies'.

It continues:
Fair treatment means that no group of people, including racial, ethnic, or socio-economic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.'

Environmental justice

It has come a long way since its humble beginning in the predominately rural African American Warren County, North Carolina, where in the early 1980s a hazardous waste landfill ignited protests which resulted in over 500 arrests. The protests provided the impetus for the United States General Accounting Office to conduct an independent investigation. They also led the United Church of Christ Commission for Racial Justice to produce its historic report, Toxic Waste and Race in the United States, in 1987. This was the first national study to correlate waste facility sites with demographic characteristics.

Over 28.4 per cent of all low-income African American children are lead-poisoned compared to 9.8 per cent of low-income white children.

Bad air hurts. It is also costly; the federal Center for Disease Control and Prevention places air pollution-related health costs at $14 billion a year. Ozone has been associated with rising asthma, allergic and cardio-respiratory disorders and death. Asthma accounts for 10 million missed school days, 1.2 million emergency room visits, 15 million outpatient visits, and 500,000 hospitalizations each year. The asthma hospitalization rate for African Americans and Latinos is three to four times greater than for whites.