ECONOMICS

Adam Smith 1909 (voluntary transactions)

Invisible Hand - “turning selfish, uncoordinated actions into increased prosperity and relative social harmony”

- Tragedy of the Commons
- Externalities
- Private Property

Market Failure
resources misallocated:
“a few individuals or businesses benefit at expense of the larger society” (Primack 2006)
How is Economic Development Different?

Takes quality of life into account:
- life span, infant mortality
- education
- health care
- environmental quality
- pollution
- clean air and water
- percent of population below poverty line
- etc.

"For poor women the only holiday is when you are asleep."

Women:
- Do 2/3 of the work
- 10% of the income
- own 0.01% of the property
- 70% of the world's poor
- 2/3 of the world's illiterate

(page 87 Miller 2005)

EXTERNALITIES

Internal Market Costs vs. Externalities
- External to Market Forces
  - Noise
  - Pollution
  - Acid rain
  - Erosion
  - Global Warming
  - Eutrophication
  - Disease
  - Asthma
  - Birth Defects
  - Behavior and Intelligence

Not always negative!
Over the past 50 years, the federal government has provided more than $500 billion in subsidies to the fossil fuel and nuclear industries, investing a fraction of that in energy efficiency and renewable sources of energy such as wind, solar and geothermal. As a result, coal, nuclear power, oil and gas provide more than 91 percent of our electricity needs in the U.S. This dependence on fossil fuels carries severe public health consequences, including asthma attacks, respiratory disease, heart attacks, and premature deaths. Moreover, fossil fuels, such as coal and oil, pollute the environment from the point of extraction to combustion in the form of global warming, acid rain, oil spills and runoff pollution. At the same time, nuclear power has left us with a nuclear waste problem for which no safe solution exists.

Conservation, Economics, Sustainable Development

That which seems to be wealth may in verity be only the gilded index of far reaching ruin.

- John Ruskin, 1883

What is the purpose of the economic system?
- to what end of this wealth? Ultimate value beyond market?

1-NeoClassical Economics (growth always good)
2-Environmental Economics (catch-all term, think cyclically)
3-Steady-State Economics (John Stuart Mill 1700's, Herman E. Daly)
- in or out
- virtue and character higher goals than material wealth?
4-Sustainable Development (Lester Brown)
- do away with many subsidies
- replace income tax with environmental tax

Goods vs. Bads

$80 billion on shoes, jewelry, watches
$65 billion on higher education

Americans since 1950 have consumed more than all in history preceding

# indivs/house dropping in US

Science a la Joe Camel

Conservation, Economics, and Education

Sunday, November 26, 2006; B01

For a generation the economic dream was to "instruct the human milieux," to coach students up the academic ladder to success in the United States. The same economic dream is now to instruct the human milieu in "sustainable development," as the United States' leading economic thought leaders gather here to plan the future of the global economy.

The dream of education was to instruct the human milieu, to coach students up the academic ladder of future success. Now the economic dream is to instruct the human milieu in "sustainable development," as the United States' leading economic thought leaders gather here to plan the future of the global economy.

The education system is not just a training ground for the workforce, it is also a training ground for citizenship. Schools are the places where we teach young people to become citizens of this country and of the world. The quality of our schools is essential to the quality of our democracy. And the quality of our democracy is essential to the quality of our lives. We must ensure that all children have access to a high-quality education, regardless of their race or their economic status.

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Throughput

Nicolas Georgescu-Roegen

~"a Cadillac now means fewer human lives later"
How to Change Economic Behavior?

- Producer Pays/Polluter Pays
- Dramatically less waste (packaging, scrubber sludge)
- Taxation/Subsidies
- Government strategies and regulation
- Stable, democratic government required?
- Product itself

Nonrival goods
(air to breathe)

or

Nonexclusive goods
(UV protection from ozone)

TABLE 28.1 Water use by people in different sorts of communities in Arabia. People in indigenous desert settlements need water for drinking, watering livestock, and other daily demands.

<table>
<thead>
<tr>
<th>Type of community</th>
<th>Domestic water use per person (L/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern agricultural villages</td>
<td>569</td>
</tr>
<tr>
<td>Nomadic agricultural villages</td>
<td>125</td>
</tr>
<tr>
<td>Small desert settlement with supply</td>
<td>80</td>
</tr>
<tr>
<td>Small desert settlement with traditional water supply</td>
<td>28</td>
</tr>
</tbody>
</table>

Source: A. Al and colleagues, 1997. Starvation City has a similar water use. (S. al et al., 2004)

Wright and Nebel 2002

Private Property?

Wright and Nebel 2002

nomadic Maasai

Wright and Nebel 2002
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

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Center for the Advancement of the
Steady State Economy

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

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Warren Buffett: Tax Inherited Estates

By LAURIE KELLMAN - 14 Nov 2007

Billionaire Warren Buffett told the Senate Finance Committee on Wednesday that Congress should keep the estate tax rather than repeal it and help a few rich Americans like him.

"I think we need to ... take a little more out of the hides of guys like me," Buffett told the panel.

One of the world's richest men and biggest philanthropists, Buffett has been outspoken against efforts, mostly by Republicans, to repeal or reduce the federal tax on inheritances. Democrats argue that a repeal would amount to a huge windfall for the nation's wealthiest families.

Estates worth up to $2 million this year and next will be exempt from the federal estate tax. Portions of estates above that threshold will be taxed at 45 percent.

In 2009, the exemption level rises to $3.5 million, and by 2010 the estate tax will be repealed — but only for a year.

Unless Congress changes the law, it comes roaring back in 2011 with an exemption threshold of only $1 million and a top tax rate of 55 percent.

Buffett said inheritance taxes preserve a measure of meritocracy, and with it opportunity, by recycling portions of great wealth through public coffers.

"The resources of society I don't think should pass along in terms of an aristocratic dynasty of wealth," Buffett told the panel. "I believe in keeping equality of opportunity as much as you can in this country."

Committee Chairman Max Baucus, D-Mont., citing information from the IRS, said that of nearly 2.5 million deaths in 2004, about 19,300 estates paid the estate tax.

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What are the major threats to biodiversity?