

FRINQ Sustainability: 1st Midterm Study Guide

Midterm: in-class Thursday March 3

Suggestion: Review your notes and the course readings in order to write out your own understanding of each of these terms/phrases. Imagine a friend or relative unfamiliar with this class asks you what each of these terms or phrases means. Make sure you could give them a reasonable answer to each. Next, try to create your own questions around these topics. What might you be asked?

Climate as a Global Problem (UN):

- UN Framework Convention on Climate Change
 - Common but Different Responsibilities
 - Kolbert's Cake Analogy
 - Scientific consensus
 - Leapfrog technologies for developing countries
 - Results (lack of results) so far; latest meeting in Cancun (others meetings before)
- US Resistance
 - Greenhouse gas "intensity"
 - Insistence that developing countries have limits
 - US Censorship of US Scientists and their reports
- Typical Response of Industry (e.g. Ozone, cigarettes, climate change)
 - Deny problem
 - Claim needs global action, hurts competitiveness (Tragedy of the Commons argument)
 - Maybe it's a good thing or doesn't matter ("easier to get a tan"; CO2 good for plants)
- Development of Human Society Result of Stable Climate
 - Last 10,000 years (from 8,000 BC to present)

Critical Thinking:

- Common fallacies in arguments: Argumentum *ad hominem* (person, not issue)
 - False Anomalies (crop circles can't be manmade)
 - Questionable Arguments by Elimination (incomplete list of possibilities)
 - Illicit Causal Inferences (correlation vs. causation)
 - Unsupported Analogies or Similarities (moons->tides; so planets->personalities)
 - Un-testable Explanations (undetectable entity did it)
 - Redundant Predictions (High prices are conspiracy because there are high prices)
 - Ad Hoc Rescues (my psychic powers don't work around skeptics)

Collapse:

- Definition
- Hurricane Katrina as a modern example
- Reasons people overexploit environmental resources
 - Resources seem inexhaustible at first, signs of resource depletion hidden in normal fluctuations; tragedy of the commons; complexity of eco-systems makes it hard to predict
- Diamond's 5 factors in societal collapse
 - Damage that people inadvertently inflict upon the environment.
 - Climate change
 - Hostile neighbors
 - Decreased support by friendly neighbors
 - The society's responses to its own problems

- Contributors to past “eco-cides”
 - Deforestation and habitat destruction,
 - soil problems (erosion, salinization, and soil fertility losses),
 - water management problems,
 - over-hunting,
 - over-fishing,
 - effects of introduced species on native species,
 - human population growth,
 - increased per-capita impact of people
- Four new environmental problems we face today
 - Human caused climate change
 - Buildup of toxic chemicals in the environment
 - Energy shortages
 - Full utilization of the Earth’s photosynthetic capacity
- Easter Island as an Example of Collapse
 - which factors (of the 5 point framework) important?
- Criticisms of Collapse

World Poverty and Consumerism:

- 1/5 world lives on less than \$1/day; more than half the world lives on less than \$2 / day
- Basic Human Needs: Food, Water, Healthcare, Shelter, Education, Security
- Major challenges to meeting human rights: war, natural disasters, climate change, diseases, unemployment (and these are all interconnected)
- Oregon poverty: 3rd hungriest state in US, 500K in poverty in Oregon
- Hans Rosling videos and world trends in poverty, education, health
- The Story of Stuff
 - Linear system vs. finite planet
 - Factors that influence consumerism
 - Criticisms of Story of Stuff