

Sustainability

Lecture Part 3

SOC165

Spring 2010



In Part 3

Sustainability in debate:

- The precautionary principle and GMO's



Precautionary Principle

Wingspread Statement:

“When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.”



Precautionary Principle

The concept has been codified in:

- The areas of food law & consumer protection, research & trade
- 1992 Rio UN Declaration on Environment & Development
- 1992 Maastricht Treaty
- In 2000, the European Commission issued a Communication on the precautionary principle in which it adopted a procedure for the application of the concept



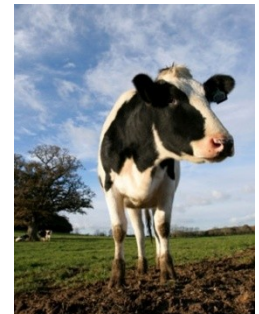
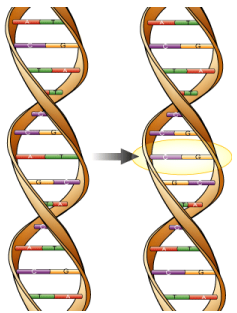
Precautionary Principle

- If a technique or technology could be harmful, limit it or do not use it
- Worldwatch: Adopt PP because of the high uncertainty of our understanding of ecosystems and the impacts, for example, of many chemicals



PP and GMO's

- GMO = “genetically modified organism”
- New breeding of plants and animals using DNA manipulation
- Debate over possible health and environmental effects



GMO Advocates

- Monsanto: “Biotech” is good for environment and society
 - Less pesticides
 - More productive
 - Farmers have more free time
 - More profitable for farmers



More GMO Benefits?

- Feed many parts of the world
- Allow agriculture in marginal areas
- Better nutrition
- Reduce waste
- Make agriculture more predictable
- Same as traditional breeding



Negative Aspects of GMOs?

- Genetic material may enter environment
- Unknown health effects
- Economics: entraps poor farmers through use of sterile (“killer”) seeds and private patents
- Loss of local food crops & methods
- Promotes industrial-style agriculture



Changes in Agricultural Production

- Farmers who want to be organic may have GMO blow onto their fields
- Structural issue: even if you grow organic, must be shipped through GMO facilities – destroying the “organic” quality
- Commodification of seeds
 - “Killer seeds” undermine self-sufficiency, impose reliance on corporations for new seeds
 - “Bio-piracy” (e.g., Basmati rice)



Changes to Food Consumption

- More homogenous, mass-produced food in stores?
- Consumers want information so they can choose non-GMO products
- Companies want to keep info secret; claim there is no risk



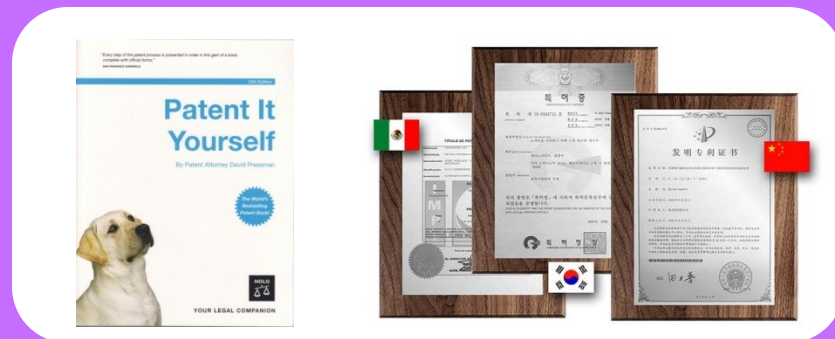
The Role of the State

- How regulate patents on life forms?
- GMOs may impose risks on whole population
- Should step impose precautionary principle, or allow free market to work?



Human – Nature Relations

- What is human relationship to nature?
- Can companies patent life-forms?
- Commodification of life itself for private profit
- Debates about scientific knowledge and who should make choices about agricultural policy



GMOs and Sustainability



End of Part 3

Continue to Part 4.



Citations Used in This Lecture

Bell, M. (2004) *An Invitation to Environmental Sociology*.
2nd ed. Thousand Oaks, California: Pine Forge Press.