(4201-431)

Environmental Policy

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Review and Discussion Questions

- 1. What is environmental and natural resource economics? Summarise the role of economics in environmental policy.
- 2. Why do economists prefer using market prices in evaluating non-market solutions? What do economists do when market prices are not available? (see Article of FULLERTON & STAVINS in Nature)
- 3. Explain what Kenneth Boulding means by a 'cowboy economy' and a 'spaceman economy'?
- 4. What was the main finding of the report "Limits to Growth" by the Club of Rome. Why was the report criticized?
- 5. Give a definition of 'sustainable development'. Explain what is meant by sustainable development.
- 6. Sustainability should require considerations of both efficiency and equity. Discuss.
- 7. Sustainable development ultimately implies a static population size. Do you agree? Why, or why not?
- 8. Explain the concept of resource scarcity.
- 9. What are property rights? Why are they crucial for successful market systems?
- 10. A. Schmid said "In a world of scarcity, it is impossible to implement freedom for everyone. One person's freedom and opportunities are a cost to another." What is the meaning of this thesis concerning environmental goods?
- 11. Name and explain the various types of market failure.
- 12. What is the "free-rider" problem? When does it arise? What effect does it have on environmental policy?
- 13. Examine the following two statements. Are they equivalent?
 - a) Pollution damage costs are externalities.
 - b) Not all aspects of pollution damage costs can be evaluated in monetary terms.
- 14. Use a graph to explain the effect of a negative or positive externality on the efficient level of production.

- 15. Economists see pollution problems as examples of the class of adverse externality phenomena. An adverse externality is said to occur when the decisions of one agent harm another in an unintended way, and when no compensation occurs. Does this mean that if a pollution source, such as a power station, compensates those affected by its emissions, then there is no pollution problem?
- 16. What is meant by the economically efficient level of pollution? Explain and also use a graph. Give some examples what can change the efficient level of pollution control. Explain why and how it changes.
- 17. Does efficient environmental policy guarantee sustainable outcomes? Why or why not?
- 18. Evaluate the relative merit of each of the following environmental management strategies. Identify at least one real-world case under which one of these strategies is more appropriate than the others.
 - a) Pollution should be "prevented" at the source whenever feasible.
 - b) Pollution should be "controlled" up to a point where the total social cost for disposing is minimized.
 - c) Pollution should be controlled to prevent major long-term and irreversible ecological impacts.
- 19. What are enforcement costs of environmental policy? Why is the level of enforcement an important policy consideration?
- 20. What is the Coase Theorem? Explain the complications with Coase's arguments.
- 21. Briefly discuss the issue of "corporate social responsibility". In your answer you have to make reference to market failures and the role of the government.
- 22. Name and explain at least 10 key criteria concerning the choice of environmental policy instruments.
- 23. What are Command-and-Control Policies (CAC) for the Environment? Give an economic analysis of standards. Explain your analysis. Have a closer analytical look at innovation and pollution abatement cost of CAC.
- 24. What is meant by Vintage-Differentiated Regulation (VDR)? Explain the problems with VDR.
- 25. What is a Pigouvian tax, what a subsidy? Explain the possible problems with subsidies as an instrument of environmental policy.
- 26. Why do governments use emission fees? How do firms respond to a pollution tax/emission fee and what are the market effects? Name and explain the implementation issues that have to be addressed when implementing emission fees.
- 27. What are transferable discharge permits? Explain how a system of transferable discharge permits works.

- 28. Explain the implementation issues of transferable discharge permits.
- 29. State True, False or Uncertain and explain why.
 - a) Waste emission should not exceed the renewable assimilative capacity of the environment.
 - b) While most taxes distort incentive, an environmental tax corrects a market distortion.
 - c) Environmental regulation creates more jobs than it destroys.
- 30. Evaluate the arguments for the use of market or incentive-based instruments versus command-and-control instruments in the regulation of environmental externalities (under conditions of certainty).
- 31. Environmental organizations have opposed market-based pollution control policies out of a fear that permit level and tax rates, once implemented, would be more difficult to tighten over time than command-and-control standards. Is this fear justifiable? Why or why not?
- 32. Which of the environmental policy options discussed would you recommend if a hypothetical society were facing the following environmental problems? On each case, briefly explain the justification(s) for your choice.
 - a) a widespread problem with campground littering;
 - b) pollution of an estuary from irrigation runoffs;
 - c) air pollution of a major metropolitan area;
 - d) the emission of a toxic waste;
 - e) damage of lakes, streams, forests and soil resulting from acid rain;
 - f) a threat to human health due to stratospheric ozone depletion;
 - g) the gradual extinction of endangered species.
- 33. How does income influence the demand for environmental protection? Why does an increase in income cause a shift in the supply or marginal cost function?
- 34. What is meant by the Environmental Kuznets Curve (EKC)? How is the EKC estimated? Explain the critics of the EKC.
- 35. Different pollutants show different relationships to an increase in per capita income. Explain why, and give examples by using graphs. What are the respective policy implications?
- 36. How can developed countries help developing countries in dealing with environmental concerns? Explain.
- 37. The root cause of underdevelopment and environmental degradation is the "overdevelopment" of a handful of rich nations. Discuss.
- 38. "Environment and development are a contradiction in terms." Discuss.

- 39. It is occasionally suggested that environmental tariffs should be levied on imports from regions of the world which permit firms to operate with minimal or no pollution standards, in order to offset the 'unfair' trade advantage enjoyed by the 'pollution haven'.
 - Critique this proposal. In your answer you should make reference to three or more of the following topics: the relationship between economic growth and environmental quality; the optimal level of pollution in low-income versus high-income countries; the effects of restrictions on output versus restrictions on emissions; empirical evidence on pollution havens; the effects of trade liberalization on pollution levels; any other topic you consider relevant.
- 40. What are the main greenhouse gases contributing to the enhanced greenhouse effect? Is climate change man made or does it have natural causes? Explain your opinion.
- 41. What are the consequences and impacts of climate change?
- 42. Name and discuss national and international policy instruments to address climate change.
- 43. What is the Kyoto Protocol and what are the goals of the Protocol. What are the effects of the Kyoto Protocol? Explain.
- 44. In class we examined an approach for global climate policy. Explain the different parts of the approach and discuss why they seem to be important to consider.
- 45. How can the different Tradable Permit Systems be linked? What are the concerns and what the potential benefits of linkage? Explain briefly
- 46. Why does Sandel (editorial article in the New York Times) believe that it is immoral to buy the right to pollute? Why do the respondents to Sandel's article believe that marketable emission permits are not immoral? What is your opinion? Explain.
- 47. Explain briefly the different dimensions of water supply.
- 48. Explain the negative effects of treating water as a priceless good. If we treat water like an economic good, what can be done for the poorest who might not be able to afford to pay?
- 49. Explain the allocation of environmental costs and benefits in the case of farming.
- 50. Which role does the level of good farming practice play as a reference level to allocate agri-environmental costs and benefits?