

PAPER TOPICS

EC335
GMU

Environmental Economics
Suggested Paper Topics

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All papers should be typed double spaced and be **five to seven pages in length**, as necessary. The purpose of the paper is to use the tools and concepts developed during the semester to analyze an environmental problem or policy. Grades will be based upon the originality and quality of the economic analysis conducted in the paper. Style counts, but only insofar as good reasoning is best revealed by clear well-organized prose. A list of all the references and data sources used should appear in a bibliography at the end of the paper. Please **remember** that the purpose of the paper is to demonstrate your command of the tools developed in class, so a few graphs should be included..

Some ideas for topics include:

1. Local Externalities and Unrealized Potential Gains to Trade
 - A. Analyze a real or imagined example of local pollution such as noise, air or water pollution. Demonstrate the nature of the problem and/or how far political or other measures have been taken to address the problem. How significant is the political free rider problem for this environmental or policy problem?
 - B. Examine a real or imagined example of a local pollution problem. How does competition between governments affect their policies for addressing the externality problem. Are there systematic differences between the pollution problems that local and national governments can address effectively? Demonstrate and explain.
 - C. Analyze the effect that local special interest groups may have on environmental regulations. Note how distributional as well as environmental interests may be promoted by policy advocates and economic interest groups of various kinds.
 - D. Analyze the economics and politics of tradable pollution permits. First, illustrate and discuss the advantages of tradable permit systems over other methods of regulating environmental problems. Second, are the politics of such a system different from the more widely used uniform emissions standards? If so how? Would you expect more or less restrictive emissions policies to be adopted under a tradable permits system?
2. National Externalities and Unrealized Potential Gains to Trade.
 - A. Many externalities cross state boundaries and, therefore, are best addressed by groups of states rather than single states acting independently. Show why this tends to be true. Analyze some real environmental problems where states have coordinated their regulatory actions to address an externality problem.
 - B. Explain why assigning responsibility to a permanent bureaucracy for environmental regulation tends to encourage increasingly stringent environmental regulation and enforcement because of bureaucratic discretion.

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- C. Analyze one of the alternative energy sources being talked about as a substitute for coal or gasoline as an environmental issue (wind mills, solar, bio mass, ethanol, etc.). Will the proposed alternative actually reduce emissions relative to fossil fuels over the life cycle of the alternative method of producing electricity or travel?
3. International Externalities and Unrealized Potential Gains to Trade
 - A. Analyze the problem faced by two countries in internalizing a cross border environmental problem using a median voter model for each country. Explain the reasons why independent adjustment might fail to solve the problem analyzed. Can Coasian contracts be consummated between two countries? (A good example might be efforts to clean some river, say the Connecticut river, or air pollution across a national boundary such as the St. Lawrence Seaway, Rio Grande in North America, or Oresund Sound in Europe.)
 - B. Analyze any international environmental topic using the tools developed in class. Examples of current international controversies involving externalities and or commons problems include: global warming, rain forests management, whaling and fishing rights, sulfur emissions and cfc emissions. Explain why national regulations have failed to address the problem so far, or the extent to which they have successfully addressed the problem.
 - C. One of the difficulties with analyzing worldwide environmental problems is the determination of both the magnitude and distribution of benefits and costs associated with the problems themselves and alternative solutions. Analyze how imperfect information affects individual perceptions of ideal environmental policies for (1) typical individuals, (2) environmentalists, (4) the bureaucracy and/or (5) profit maximizing interest groups.
 - D. Enforcement of international agreements is a difficult problem because no coercive method can be used. (There is no "world government" or international body with the ability to impose penalties on those who violate treaty obligations.) Develop a prisoner's dilemma game that illustrates the dilemma faced by countries who sign an agreement that requires two signatory countries to impose more stringent environmental controls on domestic industry. Each will have incentives to violate the agreement, even though both would benefit if both adhered to the terms of the agreement. Are there any solutions to this implementation dilemma? Discuss.
 4. Many other ideas are also acceptable, but please clear any other idea you might want to write on with me *before* you start writing. (I'll let you know whether or not it satisfies the purpose of the paper and/or sounds feasible.)
 5. REMEMBER YOUR PAPER HAS TO BE ON AN ENVIRONMENTAL TOPIC AND HAS TO USE THE TOOLS AND CONCEPTS DEVELOPED IN CLASS. Remember to include references and **not** to write an "editorial."