The Environmental Studies Student

Two scenes stand out in my mind from my visit to Brazil's Wetland: Forests burning before seed planting and trees as hedgerows. Before the planting season, I could see the leafless remnants of burnt trees still standing. The burning of pristine forests destroys both the habitats and countless species which depend on and thrive in these habitats. The few remaining bare, scarred trees silently convey the cost to our natural resources of pursuing our economic interests. Some forests are preserved by government edict issued in response to international pressure. But most of this preservation occurs alongside major roads — not to protect the ecosystem, but to prevent disturbance to ranches and farms along the highways. The clash between economic and environmental concerns that I witnessed in Brazil fascinates me and attracts me to the Environmental Studies Program.

Two courses in my geography department increased my interest in the connection between the environment and economics: Conservation of Underdeveloped Countries and Environmental Impact Analysis. In the former, we studied the problems of natural resource management in developing countries. The balance is always tilted toward economics growth at the expense of environmental preservation. For example, because the Pantanal Wetland could become a highly productive agricultural system once it’s drained, it is drained regardless of the destruction that drainage causes to the ecosystem. Only portions of the wetland are preserved for tourist purposes.

The other course that piqued my interest is an interdisciplinary course called Environmental Impact Analysis in which we, as a group, created matrix and flow diagrams discussing the economic and environmental impact of logging and preservation of old growth forests. I was able to use tools that I acquired in my economics and environmental studies classes. In general, logging creates economic benefits at the local level. It increases employment in the timber industry and subsequently in related non-timber industries; it also benefits local government. Yet, it has great deleterious environmental effects: soil erosion, watershed destruction, and a decrease in species diversity due to loss of habitat. The logging industry represents the classic clash between economic and environmental interests.

I also took two sequential classes in the economics department that are related to Resource Management — Theories of Growth & Development and Policies for Economic Development. Because the courses were taught by a professor who is concerned chiefly with economic growth, I learned the standard economic rationalizations for development unrestrained by environmental concerns.

In addition to my interest in resource management policies, I have a specific interest in Geographical Information System (GIS), a powerful tool for natural resource management. After taking several related classes in GIS, I began interning for the National Park Service (NPS). After I learn how to use ARC/INFO, a leading GIS package, I will assist the NPS in constructing projects. Some of my duties include spatial and non-spatial data analysis, digitizing themes such as fire locations, vegetation, wildlife habitats, etc., and tabular and graphical presentation of
results. I hope to use the tools I acquire during this internship in my continuing study of our environment.

I would like to study the social and economic factors that influence environmental policy formation. For example, because people worry more about pollution than endangered species, laws and regulations concerning environmental pollution are more numerous and stricter than for bio-diversity. Within the School of Environmental Studies, I have a particular interest in the emphasis: Economics, Policy, and Management. This emphasis deals with how economic factors can create negative externalities, such as pollution, and need to be regulated. This emphasis also tries to consider non-economic values, such as aesthetic pleasure and specie diversity. It also discusses tools like GIS and system analysis that apply to environmental management. Because of my interest in GIS, economics, and environmental studies, this emphasis suits me perfectly. Furthermore, the interdisciplinary approach of the School of Environmental Studies attracts me since it combines social science’s strengths with a knowledge of the natural sciences necessary to protect and preserve the environment.

After completing my masters program, I would like to continue my education and obtain a Ph.D. in natural resource management. This degree would enable me to combine a teaching career with advising business and government on natural resource management issues. Teaching college students is more than a one-way channel; I would also learn from their questions like my professors have from mine. In advising business and government, I can help them strike a balance between economic and environmental concerns. GIS will be a useful tool in helping me give them crucial information.

I have enjoyed an interdisciplinary approach in my environmental studies major and become fascinated by the clash between social interests, especially economics, and environmental needs. I pursued an additional major in economics to better understand this conflict. Furthermore, my work for the NPS will train me in the latest techniques in natural resource management. I would like to continue exploring this clash and resource management in the School of Environmental Studies. Ultimately, I would like to teach and work in natural resource management. Ideally, I would like to find ways for allowing development while preventing the burning of beautiful and valuable eco-systems like the Pantanal Wetland.