EnviroAtlas: A Spatially Explicit Tool Combining Climate Change Scenarios and Ecosystem Services

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While discussions of global climate change tend to center on greenhouse gases and sea level rise, other factors, such as technological developments, land and energy use, economics, and population growth all play a critical role in understanding climate change. There is increasing urgency for methods to forecast how different sectors, in particular ecosystems and the goods and services they provide, may be altered as a result of climate change. However, due to their complexity, it is difficult to assess these ecosystem services at a single point in space or time, as they may be influenced by surrounding and distant patterns of land use and biophysical attributes in addition to climate change. In order to make meaningful conservation and adaptation choices, specific ecosystem components must be viewed in relation to future climate information. The US Environmental Protection Agency and its partners, have developed EnviroAtlas, a web-based geospatial tool that allows users to interact with climate change modeling information while simultaneously providing a range of information and data on different ecosystem goods and services. This can be a useful platform for inquiry about the supply, demand, or benefits provided by a specific ecosystem service, and to understand the potential impacts to that ecosystem service due to our changing climate. Housing a variety of data in one publicly available tool encourages users to think in new, trans-disciplinary ways that focus on the relationships between ecosystem services and climate change impacts. By combining many fields of research through this easy to-use interface, the result is a novel tool that is spatially and temporally explicit and enables better decision making across multiple sectors. This talk will illustrate how the information presented in EnviroAtlas can be used in research.