

*South America: producing a blueprint for a green continent*

The South American continent presents, in a relatively self contained system, all of the challenges that the world will face in balancing energy needs against climate consequences, all with the backdrop of energy rich and energy poor countries, political and cultural conflict, and strikingly different degrees of economic development. Consider the following sample of recent issues: gas rationing and electrical brownouts in Argentina and Chile this austral winter; political conflict in Bolivia between the natural gas rich Santa Cruz lowlands and Morales administration with its support among the fossil energy poor native peoples in the highlands; unprecedented rates of melting of Andean glaciers in a continent that gets more than 25% of it's energy from hydroelectric; the world's second largest tar sand deposits in the Orinoco of Venezuela controlled by the Chávez administration with a stated goal of using energy resources for political gains. And yet, the continent is blessed with abundant potential for carbon-free or -neutral energy sources, especially in countries with relatively small reserves of fossil fuels: a 5000 km long volcanic arc capable of producing significant geothermal energy; the world's driest desert, the Atacama of northern Chile and Southern Peru, which holds considerable potential for solar energy; abundant eolian resources in Patagonia and in the Altiplano of the Central Andes for wind power; and, one of the world's largest producers of biofuels and 3rd largest producer of hydroelectric power in Brazil. I envision a project -- South America: Blueprint for a Green Continent -- that would assess the continent wide prospects for green energy development, in the context of climate change, and with a realistic evaluation of historical, cultural, and political forcings. Cornell, with its expertise in South American geology (e.g., the Cornell Andes Project, including paleoclimate, in EAS), economic development (through AEM), and culture and politics (Latin American Studies Program) is well positioned to carry out such a study. Funding for such a study might come from USAID or regional/world development banks.