Seminar: Globalization of Water & Food through Trade & International Investments in Agriculture

Presenter:
Paolo D’Odorico, Professor, Department of Environmental Sciences, University of Virginia

Time of Event:
Tuesday, February 3, 2015 - 12:30

Location:
National Socio-Environmental Synthesis Center (SESYNC)
1 Park Place, Suite 300
Annapolis, MD 21401

Seminar abstract:
The increasing global demand for farmland products is placing unprecedented pressure on the global agricultural system and has recently led to episodic food crises. New bioenergy policies, changes in diets, and population growth have eroded the ability to cope with shocks in the global food system. Several countries are not self-sufficient, and their food security strongly depends on trade, which becomes unreliable when the supplies in the international food market are scarce. As a result, investments in agriculture have become a priority for a number of governments and corporations that are trying to expand their agricultural production while securing good profits. Both trade and large-scale land acquisitions in the developing world are contributing to a globalization of land, water, and food. This phenomenon leads to a displacement of land use and a disconnection between human populations and the land and water resources they rely on. Despite the recognized importance of the role of trade in global and regional food security, the societal reliance on domestic production and international trade remains poorly quantified. The way societies virtually modify their access to land, water and food through trade and foreign land acquisitions is here discussed in the context of food security, environmental stewardship, and sustainability of rural livelihoods.

Speaker bio:
Paolo D’Odorico's research focuses on the understanding and modeling of the hydrological processes that determine the temporal and spatial dynamics of soil moisture at different scales. In particular, he is presently studying how these dynamics affect the soil nutrient budget, the occurrence of water stress in vegetation, the coupling between the land surface and the overlying atmosphere, the soil susceptibility to wind erosion, and the stability of hillslopes and colluvial deposits.

In these analyzes, Dr. D’Odorico uses a process-based, probabilistic approach to develop simple mechanistic models, which are then tested against data. These models offer a quantitative framework to study non-linearity and feedbacks embedded in the dynamics. They also show to which extent and in which conditions hydrologic processes have an impact on soils, vegetation, and near-surface atmosphere.
This research offers the possibility to establish a number of interactions and collaborations with students and colleagues working in ecology, land surface processes, and climatology.

**Event type:**
Seminar

**Event Attendance:**
Open to the Public

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