



Presented By:
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Department of
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Environmental Engineering *Seminar*

Friday, September 23rd
McDonnell Douglas Engineering Auditorium (MDEA)
1:30PM - 2:30PM

Globalization Of Water Through Trade & Transnational Investments

Water is a major resource constraining food production in many regions around the world. Its global distribution depends on geographic conditions but can be modified by humans through mechanisms of globalization, such as trade and foreign direct investments. 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 water and 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. Despite the recognized importance of the role of trade and land acquisitions in global and regional food, energy, and water security, the societal reliance on domestic production and international trade remains poorly quantified. This seminar will discuss about the way societies virtually affect their access to water for food and energy production, and analyze the consequent impacts on societal resilience, environmental stewardship, and sustainability of rural livelihoods.



Paolo D'Odorico is the Ernest H. Ern Professor of Environmental Sciences at the University of Virginia. His research focuses on the role of hydrological processes in the functioning of terrestrial ecosystems and societies. Starting from analyses of mechanisms underlying the coupling between hydrological processes and the biota, his research has contributed to the emergence of the field of ecohydrology. Through field observations and modeling studies he is studying new mechanisms of desertification and factors contributing to the resilience of the desert margins. His work has highlighted the effect of positive feedbacks between vegetation and resource (e.g., nutrients, water, light, or energy) availability on the resilience of dry tropical forests, freshwater wetlands, mangrove swamps, and seagrass meadows. His research has also shown how environmental variability may increase the complexity of ecosystem dynamics by inducing new bifurcations, pattern formation, and enhancing ecosystem resilience. He is currently investigating the global patterns of virtual water trade and international land investments and their impacts on water equity, societal resilience, and food security.

Questions? - cee@uci.edu - (949) 824-5333