



# UNIVERSITY OF THE PHILIPPINES SCHOOL OF ECONOMICS

*and*

## PCED

Philippine Center for  
Economic Development

*present a seminar on*

## The Impact of Climate Change on Food Security in the Philippines: Should the Country be Alarmed?

by

**Dr. Agustin L. Arcenas**

**22 April 2016, Friday**

4:00-5:00 p.m. – Room 303

### **Abstract:**

The literature indicates that climatic conditions have observable impacts on agricultural production, arising from the physical changes in the nurturing environment for plant growth. The conclusions have been that increases in temperature have negative effects on food production for those that are close to the equator, suggesting that tropical countries like the Philippines would be negatively affected by global warming. This study verifies if this is indeed true for the Philippines, and also tests if other climatic variables that are now being affected by global warming also have an effect on production, specifically rice and corn. The regression analysis confirms that changes in temperature have a negative effect on corn production, but curiously, have a positive effect on rice production. The findings also indicate that the intensity of El Niño negatively affects domestic rice production but not corn. It is suspected that the country's overall policy support for rice production may be making significant strides in addressing gradual climatic changes such as temperature changes, but has failed to neutralize the negative effects of a weather shock such as El Niño. Finally, this study also found that corn production is not sensitive to the intensity of El Niño, but is negatively affected by temperature and precipitation. This result needs to be further investigated to determine how and why corn production seems to be unaffected by this weather shock.

### **About the speaker:**

Dr. Agustin L. Arcenas is an Associate Professor at the U.P. School of Economics. He earned his Ph.D. in Agricultural Economics specializing in Environmental and Natural Resource Economics at Michigan State University in East Lansing, MI and his M.S. in Applied Economics at the University of Wisconsin in River Falls, WI, both in the United States. He is an alumnus of the U.P. School of Economics, graduating with a BA Economics degree with honors.

Before joining the School of Economics in 2005, Dr. Arcenas was a member of the Policy and Economics Team(PET) as consultant and Environmental Economist in the (then) Environment Department of the World Bank in Washington, D.C.(USA), and as Visiting Professor at Michigan State University. Since moving back to the Philippines, he has worked on and written about various environmental and natural resource issues both in the Philippines and abroad, including payments for environmental services, water and air pollution, economics of climate change, natural resource valuation, forest management, environmental health, mining, and waste and sanitation. He has also advised the Philippine government on various environmental and natural resource issues such as surface water management, emission reduction, protected area management, and pollution.



**Free and open to the public**

For group attendance, please contact Ms. Gloria Lambino, UPSE Economics Research Center

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