

Growing Enough To Feed 10 Billion Under Climate Challenges

Speaker: **Dr Deepak Ray**
Institute on the Environment, University of Minnesota

Chair: Prof Alan Ziegler, Department of Geography, NUS

Date/Time: Friday, 16 January 2015, 3.00pm – 4.30pm

Place: Earth Lab (AS2 02-03), Department of Geography, NUS

Abstract

The growth in global population in conjunction with rising prosperity is resulting in ever increasing demands on global agriculture. Roughly a doubling in production is required by 2050. Numerous challenges in agriculture have however stalled the progress of the Green Revolution that supported the vast increase in human population and prosperity since the 1960s, especially in the important breadbaskets of Asia. Climate variability, mean climate changes and extreme climatic events are some of the climate related challenges that our agriculture now faces.

Using millions of observed statistics and modeling I will describe global maps that identify and quantify the status of the Green Revolution and where the climate related challenges to agriculture are present. The understanding that we can gather from analyzing the recent past will help us to strategize in ensuring future world food security.

About the Speaker

Deepak Ray is a Senior Scientist at the Institute on the Environment, University of Minnesota, United States. He builds high-resolution global datasets of agriculture statistics and then uses them to investigate the challenges faced in global agriculture such as the status of the Green Revolution, global food security trends, and climate challenges to global food security.

He also builds land change models, and studies the impacts of land change on climate using satellite remote sensing and climate models. He has a PhD in Atmospheric Science and a Masters in Environmental Science.

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