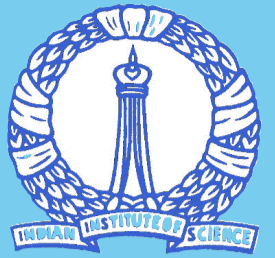


# Divecha Centre For Climate Change

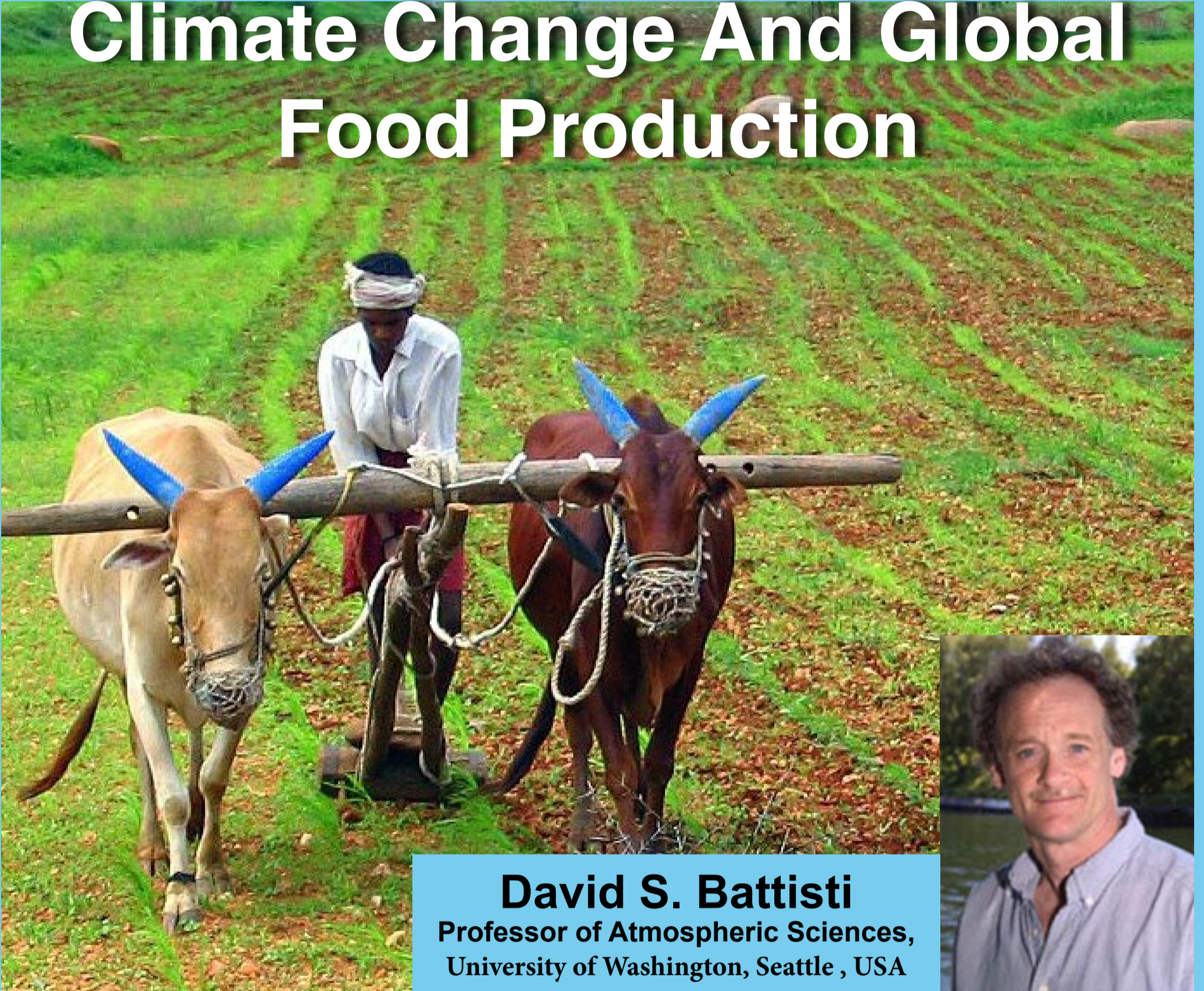
## Indian Institute Of Science



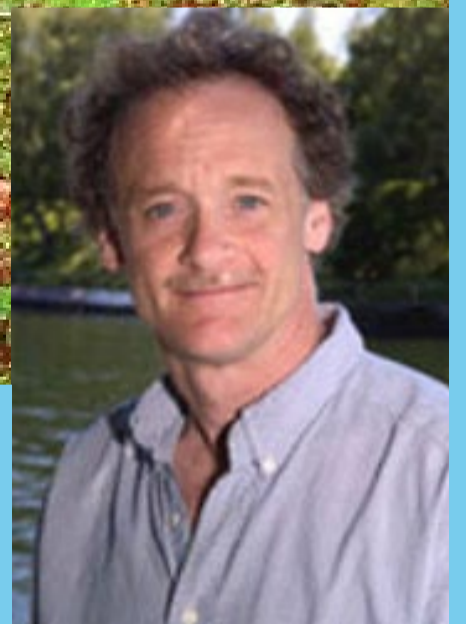
### 14<sup>th</sup> JEREMY GRANTHAM LECTURE ON CLIMATE CHANGE



# Climate Change And Global Food Production



**David S. Battisti**  
Professor of Atmospheric Sciences,  
University of Washington, Seattle, USA



By the end of the century it is very likely that throughout the tropics and subtropics the season averaged growing temperature will exceed the highest temperature ever recorded. By 2050, the increase in the climatological temperature alone will cause a 20% reduction in the yield of all the major grains (maize, wheat, rice and soybean). We present results that show year-to-year volatility in maize (and likely soybean) production will likely double in all the midlatitude breadbasket countries, even with no change in the statistics of the weather. We present a model of yield loss due to pests that suggests by 2050 warming will increase the global yield losses to pests by 20-50%; insect-induced yield losses will also be most acute in the midlatitude, where both population growth and metabolic rates of insects rise with warming.

**On Friday 9<sup>th</sup> Nov 2018, 3:30 pm**  
**at Divecha Centre for Climate Change**  
**Auditorium**  
**Tea at 3:15 pm**