Climate Change and its effects on rice production in Southeastern Mainland Asia.

Mitchell T. Noworolnik[(1)] and Sarah Daniels[(2)]

1-Geography and Sustainable Planning Department, Grand Valley State University, USA

2-Department of Biology and Natural Resource Management, Grand Valley State University, USA

Abstract

Southeastern Mainland Asia is home to a climate consisting of high, uniform temperatures, and a high amount of rainfall. This climate is what allows Southeastern Asia to produce most of the World's rice resources. Rice in Asia is not only depended on as a main export of the region, but as a staple crop throughout the 6 countries of Vietnam, Laos, Cambodia, Thailand, Myanmar, and in the western half of Malaysia. What will be the potential complications that global climate change will have on this historically important grain in their agriculture? What kind of adaptations in agriculture are the people of this region implementing to help their present and future populations be food secure? Observations over the past decades of research have shown that an increase in the temperature of this region has already caused more sporadic rainfall events and longer periods of drought. This new threat has the potential to increase the number natural disasters in both frequency and ferocity in Southeastern Asia and has those who call this area home feeling an escalating anxiety. Collective data into this topic shows that if changes to the climate keep occurring, further calamities will threaten the stability of the economically thriving rice industry and hinder those most vulnerable to its effects from generating income and lifting them out of poverty stricken areas. Using the latest research and climate modeling systems from those on the front line of this issue, we will see the potential impacts of climate change on this region's main source of wealth and how these countries are adapting to future expectations of the climate.

Key words: climate change, rice, drought, Southeastern Asia, adaptation, food security

Professional Biography

Mitchell Noworolnik is in the process of completing a Bachelor of Arts degree in geography with an emphasis in sustainable urban and regional planning, a minor in environmental studies, and a certificate in GIS technology from Grand Valley State University in the United States. He plans to pursue a Masters degree in Urban and Regional Planning. Mitchell's areas of interest include sustainable mobility, human well-being, and promoting the greening of landscapes in cities as a way to counter-act climate change.



Email Id: mtnoworolnik@yahoo.com