



Agriculture and Disaster Management

Distributional Impacts of Climate Change and Food Security in Southeast Asia

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Climate and agriculture are closely linked, as weather and climate are the primary factors in agricultural production. Due to high levels of carbon dioxide, future projections of climate change indicate increasing temperatures and varied rainfall, both which will greatly impact the agricultural sector. In this context, this paper assesses food security with respect to climate changes over Southeast Asia, focusing on southern Viet Nam. This multidisciplinary study integrates regional climate modelling, agricultural science-crop modelling, and risk assessments, which form the base for the creation of regional/local information products that will have direct societal applications. This study is useful for assessing socio-economic risks and leads to opportunities for interdisciplinary collaboration, which will directly benefit the ASEAN region to develop adequate adaptive practices towards risk management, food security, diversification, and planning.

Food Supply Chain Disruption due to Natural Disasters: Entities, Risks, and Strategies for Resilience

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The resilience of the food supply chain (FSC) to disruptions has not kept pace with the extended, globalised, and complex network of modern food chain. This study presents a holistic view of the FSC, including the dynamics among its components, and risks and vulnerabilities to disruptions, particularly natural disasters. Natural disasters pose huge economic challenges to nations, communities, and corporations worldwide. Agriculture is one sector most affected by natural disasters, including the increasing effects of global climate change. Specifically, the annual fluctuation in crop production as well as trade in agricultural products that affect FSCs has been closely linked to natural disasters and extreme weather. This paper discusses how FSC's dependence on existing infrastructure and how a country's lack of preparedness for emergencies potentially aggravate the disruptions brought by natural disasters. It underscores how the identification of challenges and knowledge gaps can be part of the process to enhance the resilience of FSC and provides examples of disaster relief operations. It further explores the challenges and opportunities for a robust FSC in ASEAN and other developing countries through capacity building and good governance.