

Climate Change and Potential Impact on Microbial Food Safety

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Climate change has been recognized as the impact on health and wellbeing, particularly the spreading of foodborne diseases caused by microorganisms. Several Salmonellosis and other diarrhoeal disease outbreaks have been associated with the use of unhygienic irrigation in vegetable production which may involve with drought and shortage of water reservoirs. Rising temperature and increased risk of flooding have been shown affect to the distribution and incident of diarrhoeal disease in Southern region of Thailand in year 2006. The higher incident foodborne outbreaks in summer month were also the result from supporting growth of some microorganisms causing illnesses e.g. Vibriosis and Staphylococcal infection. Not only the risk from bacterial diseases is raised from the climate change, the increase risk from mycotoxins contamination in agricultural product is also shown. If the temperature increases in temperate climates, the relevant counties may become liable to aflatoxin problems in food and feed. While cold regions may become liable to other temperate mycotoxin concerning such as ochatoxin A, patulin and other Fusarium toxins. Imported corns from Europe and China have been found frequently fumonisin contaminated than previous years. The awareness of these issues due to climate change, bacterial diseases and mycotoxin contaminated in food, should be seriously discussed among Pacific region in order to provide information to identify and prioritize the policies and strategies to manage the risk.

Keyword: Climate change, diarrhoeal disease, bacterial infection, mycotoxin,
temperature rise, flooding