Climate change extremes (excess rainfall and drought) impacts on vegetation productivity

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Many global climate models have predicted variability in rainfall events in various parts of the world. Extreme events like floods and droughts can harm vegetation biomass accumulation and reduce yields. Dealing with excess water stress would be challenging in Monsoon Asia where extreme precipitation coincided with the crop growing season while drought could become a serious threat in areas where decrease precipitation accompanied with increase temperature has been projected. Field experiments conducted in Japan showed that a 2-week period of excess water would reduce soybean yield (25-31%) by reducing biomass, attributed to reduction in less cumulative intercepted radiation and low radiation use efficiency, even if the water condition is maintained at a preferable level for the remaining time. Study on tall grass prairie using remote sensing data products at central Oklahoma USA, showed the summer drought of 2012 reduced grassland productivity almost by fifty percent. The flash drought (rapid onset) of about 1-2 weeks impacted the ecosystem productivity severely thereby causing the collapse of the ecosystem which had constrained recovery. Basically, both research studies summarize the role of light components in plant biomass productivity under two extremes of precipitation, anticipated outcomes of climate change. Therefore, it is very important to understand how the extremes of rainfall cause reduction in vegetation biomass so that the adaptation strategies could be formulated for the resilience ecosystem.

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Expanding wood chip exports via long-term international relationships: Trust and commitment relationships - developing enduring transactions

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This presentation focuses on factors motivating the trend toward the enhanced duration of a buyer-seller relationship which will lead to long-term contractual relationships in an effort to contribute to a better understanding of the driving forces of trust and commitment. It will also focus on their impact on the importing firms' performance in an exponentially expanding market context. Traditional sales of wood chips exported from mostly North American suppliers who are concluded as discrete transactions or spot market transactions. In the business world and in academia, the reference to a discreet transaction is one that relationships can be built upon, however, it is in its pure form, one that transpires having had no history between the parties, and nothing ever has been nor ever will be. This is akin to there being money on one side of the ocean and the commodity (Wood Chips) on the other and the one discrete transaction in the offering (spot sale) and no more expectation to follow. At the core of trust and commitment, marketing is the exchange that is profitable to parties involved in the exchange. The concept of exchanges as it applies to trust and commitment marketing is viewed from either a transaction cost analysis approach or a social exchange theory approach. The ultimate goal in developing the enduring relationship is to foster and maintain a competitive advantage over rival firms in the industry.

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