

A Data-Analytical Way of Estimating Rice Crop Yield: Economic and Water Related Causative Factors

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Abstract

Data analytical method using both economic and weather parameters is not just an alternative but is supportive and complementary to other commonly used techniques like remote sensing, agro-meteorological modeling, and field surveys to assess crop outlooks. This study, based on a model and official data, finds that economic factors related to markets and policies play an important role in the determination of rice yield in India and the role of rainfall has complex spatio-temporal dimensions and interactions with water management infrastructure and protocols. The yield forecast based on the model and early information of weather can provide a reliable real time outlook for policy use and validation of other forecasts and can be updated over time with the flow of new information.

Keywords: River Basin, Crop Yield, Climate change, Price Effect, Rice, Modeling.

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