A Study on Cropping Pattern Changes in Southern Zone of Andhra Pradesh – A Markov Chain Approach

P Venu Gopal Naidu, K N Sreenivasulu, V Srinivasa Rao and K S R Paul

Department of Statistics and Computer Applications, Agricultural College, Bapatla, A. P.

ABSTRACT

Cropping pattern means the proportion of area under different crops at a point of time. The change in cropping pattern in particular span of time clearly indicates the changes that have taken place in the agricultural development. The assessment of shift in cropping pattern in several regions is crucial for a much better insight into the agricultural development method. The present study was undertaken to examine the dynamics of cropping pattern in southern zone of Andhra Pradesh using Markov chain analysis. Time series data on area under different crops grown from the period 2001-02 to 2019-20 were collected and analyzed for 3 districts in Southern zone separately. The results revealed that cotton had highest probability of retention (0.806) in Y.S.R Kadapa district. In Nellore district, rice had highest probability of retention to an extent of 0.921, in Chittoor district groundnut had highest probability of retention (0.551) and rice had highest probability of retention (0.678) at zonal level.

Keywords: *Cropping pattern, Markov chain analysis, Southern zone and Transition probability matrix.*