

## **Analysis of growth and instability in production of major rainfed crops in Andhra Pradesh**

**Josily Samuel**

*Central Research Institute for Dry Land Agriculture (CRIDA), India*

### **Abstract**

Agriculture sector is exposed to a variety of risks, particularly crop production is characterised by high variability of production outcomes or production risks. Though there is a need to increase agricultural production and growth, the increase in instability accompanied is of concern. The instability in production leads to risk in farming and affects farmer's income. The farmers face risks like production risk, price risks, technology risks, weather aberrations, pest and diseases, etc. In this context this paper attempts to examine the risk in major rainfed crops of Andhra Pradesh. The study has estimated the district wise growth and instability of major dryland crops for the period 1990 onwards. The crops selected for the study include groundnut, cotton, maize, sorghum and castor. The analysis is confined to those districts which account for 80 per cent of area under the crop. The instability in area, production and yield were computed using instability index. Further, the production risk, measured in terms of variance was decomposed into different components. The decomposition of production variability into area and yield variability shows that fluctuations in yield have been a dominant source of production variability. Improvements in yield largely arise out of adoption of better technologies from time to time. The production of maize increased from 1990s with growth rate more than 9 percent while sorghum showed decline. There was a fall in production of ground nut and castor. The production of cotton increased with expansion in area and the change in area was 12.03 per cent, the instability in cotton productivity was higher (27.57) during early period while in later period production instability was the highest. The risks due to instability in production needs to be managed by some informal measures like avoiding risky crops, diversification and other formal mechanisms like insurance, minimum support price, contract farming, futures, etc.

**Keywords:** Instability, growth, variability, rainfed crops, groundnut, cotton

### **Biography**

Josily Samuel has completed her M.Sc and Ph.d from University of Agricultural Sciences, Dharwad and recipient of Junior Research Fellowship (ICAR). She is working as a scientist (Agricultural Economics) at Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad (ICAR). She has published 5 papers in reputed journals and one book chapter.