

# ग्रामीण भारत के विकास में कृषि की भूमिका

(Role of Agriculture in the Development  
of Rural India)



सम्पादक

डॉ० गगन कुमार

डॉ० सुरेन्द्र कुमार

# अनुक्रमणिका

प्राक्कथन	iii
भूमिका	iv
अनुक्रमणिका	v

## ग्रामीण भारत के विकास में कृषि की भूमिका

- ग्रामीण विकास एवं सशक्तीकरण में मनरेगा की भूमिका  
डा. हेमलता 1
- भारत में खाद्य सुरक्षा एवं कृषि कीमत नीति  
डॉ. पुन्ज भाष्कर 6
- कृषि और किसानों की दशा में बुनियादी बदलाव और नई नीति  
डॉ. पुन्ज भाष्कर, डॉ. ज्ञानेन्द्र जी श्रीवास्तव 15
- भारत में कृषि : चुनौतियाँ एवं सम्भावनाएँ  
डा. चैतन्य कुमार 20
- भारतीय कृषि के उत्पादन का अध्ययन  
डॉ. ज्योतिका अवस्थी, डॉ. उपजा 25
- कृषि का सशक्तीकरण—समाजशास्त्रीय अध्ययन  
डा. नीलम टण्डन 30
- भारत में ग्रामीण कृषि साख व्यवस्था : चुनौतियाँ एवं संभावनाएं  
मेवा लाल 34
- सरकारी नीतियों का कार्यान्वयन और किसानों की दशा  
प्रभाकर यादव 46
- सामाजिक, आर्थिक और राजनीतिक विकास में  
उच्च शिक्षा की भूमिका  
डॉ. कृष्ण देव उपाध्याय 53

- Emerging Technology and Crop Diversification 136  
*Santan Kumar Ram*
  - Challenges for the National Food Security Act. 140  
*Ratan Lal, Vikas Pradhan*
  - Agrarian India & Physical Fitness Activity-‘Kushti’ : 158  
An Overview  
*Dr. Sarita Yadav*
  - Agriculture and the Weather God 163  
*Anupma Singh*
  - Effect of Organic Agriculture on Sustainable 169  
Development of Indian Economy  
*Aparna Gautam*
  - Dr. B.R. Ambedkar’s thoughts on 174  
Indian Agriculture system.  
*Chitade Nandkishor P., Munde B.R.*
  - The Impact of Climate Change and Climatic Variability 176  
on Agriculture Productivity in India  
*Dr. Kumar Amit*
  - Role of e-commerce in Socio-Economic Development 184  
*Nidhi Soni*
  - Agriculture and Rural Development : Need of the 193  
21<sup>st</sup> century  
*Devendra Kumar Maurya, Sapna Maurya*
-

# Agriculture and the Weather God

*Anupma Singh\**

## Introduction

Agriculture is highly sensitive to monsoon variability as 65% of the cropped area is rain-fed. Changes in temperature and precipitation could have a significant impact on more than 350 million people who are dependent on rain-fed agriculture. The survey of several farm households across India says that 76 per cent farmers would prefer to do some work other than farming. Sixty-one per cent of these farmers would prefer to be employed in cities because of better education, health and employment avenues there. A high percentage of farmers complained of repeated losses; 70 per cent of respondents said their crops were destroyed because of unseasonal rains, drought, floods and pest attack.

Climate change is the most important global environmental challenge facing humanity with implications for natural ecosystems, agriculture & health. The perusal of general circulation models (GCMs) on climate change indicate that rising levels of greenhouse gases (GHGs) are likely to increase the global average surface temperature by 1.5-4.5°C over the next 100 years. The difference of average temperature between the last ice age and present climate is 6°C. This will raise sea-levels, shift climate zones pole ward, decrease soil moisture and storms. Global warming is predicted to affect agricultural production.

## Impact of Elevated CO<sub>2</sub>, Temperature, Precipitation, Droughts, Ground Water, Glaciers and Sea Level Rise on Agriculture

Some predict positive impacts on agriculture from climate change like increased temperatures and higher carbon dioxide levels. Increased concentrations of CO<sub>2</sub> may boost crop productivity, only where moisture is not a constraint. Higher levels of CO<sub>2</sub> can stimulate photosynthesis in certain plants (30-100 per cent). Experimental observations confirm that when plants absorb more carbon grow bigger and more quickly. This is particularly true for C3 plants (so

---

\* Asst. Prof.(Chemistry), D.D.U. Govt. PG College, Sitapur # e-mail: anupma121\_121@rediffmail.com