

ISSN: 0027-9374

# ***National Geographical Journal of India***

*An International Peer-Reviewed Journal since 1955*

***Platinum Jubilee Year of NGSI***



***National Geographical Society of India***

*Department of Geography, Institute of Science,  
Banaras Hindu University, Varanasi-221005, India*

***Website: <https://ngji.in>***

[Home](#) / [Archives](#) / Vol. 66 No. 3: September 2020

## Vol. 66 No. 3: September 2020

Published: 30-09-2020

### Article

#### **Non-inclusive tribal workforce participation in urban spaces: A case study of Jharkhand**

Bipin Kumar, Vijay Kumar Baraik

208-221

 PDF

#### **Role of agricultural technology on socio-economic development in Hathras district, UttarPradesh**

Mumtaj Ahmad, Pasarul Islam, Shamsul Haque Siddiqui

222-235

 pdf

#### **Socio-economic conditions of women under Saansad Adarsh Gram Yojana: A case study of Jayapur village of Arajiline block, district Varanasi**

Abhilasha Sharma, Suman Singh

236-246

 pdf

#### **Impact of fear of crimes on public transport usage: A case study of Delhi**

Rabindra Nath Dubey

247-258

 PDF

#### **Land use and cropping pattern change in Chandauli district, Uttar Pradesh: A geographical analysis**

Akhilesh Kumar Singh, Arun Kumar Singh

259-273



## Role of agricultural technology on socio-economic development in Hathras district, Uttar Pradesh

Mumtaz Ahmad<sup>1</sup>, Pasarul Islam<sup>2</sup> and Shamsul Haque Siddiqui<sup>3</sup>

<sup>1</sup>Assistant Professor, Department of Geography, AMU, Aligarh

<sup>2</sup>Research Scholar, Department of Geography, AMU, Aligarh

<sup>3</sup>Former DSW & Chairperson, Department of Geography, AMU, Aligarh

(Corresponding author's email: mumtazgeog@gmail.com)

### Abstract

Agriculture in India has experienced a significant transformation in the past fifty years, with agriculture being more and more oriented to a productivist form of socio-economic production. Introduction of new agricultural technologies, high yielding varieties of seeds, improve access to irrigation, education, efficient use of fertilizers and extension services are capable of enhanced productivity per unit of land. Increased production further reflects on socio-economic transformation in rural communities. The study uses secondary data from various sources published by the Government of India and the Government of Uttar Pradesh. The study covers the period between 2000-01 and 2014-15 to analyze the role of agricultural technologies on socio-economic transformation in Hathras district. The methodology adopted for the present study are Data Interpolation or Extrapolation, Yang's Crop Yield Index, Dayal's Labour Productivity, Data Standardisation technique Z- score, and Composite Z score. The study concludes that the district has experienced tremendous technological changes in agricultural practices, agriculture induced better productivity and productivity further leads to overall socio-economic transformation.

**Keywords:** Agriculture, technology, productivity, socio-economic development

### Introduction

The agriculture sector is the single largest employer in the world (Seidel et al., 2017). Even in India, the agriculture sector employs more than 50 per cent people. The application of high yielding varieties of (HYV) seeds (1966-67) and technological development have given a quick response in the form of farm production and productivity. The country like India has two sources to increase in agricultural output viz. area and productivity. Due to the rising demand for land for non-agricultural uses and the already high share of arable land in the total geographical area of the country, further expansion in area under cultivation is not feasible. Hence to ensure the economic well being of the farmers, the only viable option is to continue to enhance productivity per unit of land through the modern means of agriculture (Chand, 2017; Singh, 2019). Despite the diminishing share of GDP from agriculture over the decades, the economy as a whole continues to depend on