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Socio – Economic status of Farmers who facing the various problems related climate change

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Abstract

Agriculture is the most important sector of economy in India. Provides food and livelihood security to much of the Indian population. It plays a crucial role in the country's development contributing 14 per cent of India's Gross Domestic Product (GDP). Climate is one of the key components influencing agricultural production and has large-scale impacts on food production and overall economy. Agriculture in India suffers a lot from erratic weather patterns such as heat stress, longer dry seasons and uncertain rainfall, since about 65 per cent of the cultivated area fully depends on monsoon rainfall. Climate change is one of the biggest environmental challenges in all Countries in the world. Climate change refers to any change in climate over time, whether due to natural variability or/and as a result of human activity. It has become a major concern to society because of its potentially adverse impacts worldwide. There are already increasing concerns globally regarding changes in climate that are threatening to transform the livelihoods of the vulnerable population segments.

Keywords: Climate change, domestic, environment, socio economic

Introduction

Climate Change is the long-term changes in characteristics of climate of a region due to astrophysical, geophysical or human-induced parametric variations. Such changes of climate at global or regional level have significant influences on life processes on earth, especially man and his living environment. One characteristic of climate, under normal circumstances is its stability and predictability which governs not only the human activities like agricultural practices, but even other living beings for example timely flowering of plants, regulating the reproductive behaviour of animals and so on. With climate change, the predictability of climate is destroyed; and that creates lots of problems to cope with by both the living world in general, but human beings, in specific.

Throughout earth's history, climate has never been same over time and space. Climate change impacts and associated vulnerability are of particular concern to developing countries, where large parts of the population depend on climate sensitive sectors like agriculture and forestry for livelihood. By adversely affecting freshwater availability and quality, biodiversity and desertification, climate change tends to disproportionately affect the poorest in the society, exacerbating inequities in access to food, water and health. India is considered to be especially vulnerable to the impacts of climate change with an extraordinary variety of climatic regions, ranging from tropical in the south to temperate and alpine in the Himalayan north, where elevated regions receive sustained winter snowfall. The north of the country has a continental climate with severe summer conditions that alternates with cold winters when temperatures plunge to freezing point. In contrast are the coastal regions of the country, where the warmth is unvarying and the rains are frequent. Climate change is likely to affect all the aspect of agriculture and allied activities of human being.

Research Methodology

To complete the above objective, by employing the appropriate research methodology, the study was conducted in district Kanpur in the year 2017-2018 and 2018-2019. Two blocks Kalyanpur and Chaubepur were selected randomly in this study. From the selected blocks, twelve villages Singhpur, Barahat, Haradaypur, Baikunthpur, Gambhirpur, Mohamadpur, Abdulpur, Amliha, Ludhori, Tighra, Bhikhipur, Bahlolpur were selected. Twenty five

respondents were selected randomly from each village. Thus, 300 respondents were selected. Dependent and independent variables, namely age, educational qualification, caste, religion, type of family, size of family, type of house, annual income, occupation, land holding, social participation, awareness, constraints, suggestions etc. were used. For analysis of collected information, suitable and appropriate statistical techniques were such as percentage, arithmetic mean, standard deviation, weighted mean, rank, correlation coefficient; chi square test, z test etc were used.

Sampling procedure

Locale of the study

Uttar Pradesh was chosen as locale of the study. This was done with the intension that UP is a major state of the country and farmers have an important role in agriculture.

Selection of district

Uttar Pradesh is comprised of 75 districts. Out of these one district viz., Kanpur Nagar was purposively selected for the

study. This helped in collecting the necessary information accurately and timely.

Selection of block

There are 10 blocks in district Kanpur Nagar. Out of these 2 blocks one is Kalyanpur and other is Chaubepur were randomly selected for the study.

Selection of villages

Twelve villages were randomly selected from the selected blocks.

Selection of respondents

A list of farmers belonging to different villages was prepared separately from each of the selected villages. From each list 25 respondents were selected randomly. Thus in all, 300 respondents were selected for the study purpose.

Analysis and Findings

Table 1: Distribution of farmers according to the caste

Caste	Frequency	Per cent
General	121	40.3
OBC	131	43.7
SC/ST	48	16.0
Total	300	100.0

The data presented in table 1 shows the distribution of respondents according to Caste, 43.7% respondents belonged to other backward class followed by 40.3% respondents who were General Category and Only 16.0 % farmers belonged to the Schedule Caste in the study area.

Table 2: Distribution of farmers according to the religion

Religion	Frequency	Per cent
Hindu	232	77.3
Muslim	50	16.7
Christian	8	2.7
Sikh	10	3.3
Total	300	100.0

The data revealed in table 2 shows the distribution of respondents according to Religion, 77.3% of respondents belonged to Hindu religion followed by 16.7% of respondents

who were of Muslim religion. Only 3.3% farmers to Sikh religion where as 2.7% respondents belonged to Christian community in the research study area.

Table 3: Distribution of farmers according to the type of houses

Type of house	Frequency	Per cent
Kachcha house	59	19.7
Mixed house	72	24.0
Pucca house	169	56.3
Total	300	100.0

The data denoted in table 3 shows distribution of farmers according to type of house, 56.3% respondents possessed Pucca house followed by 24.0% respondents who had mixed house, whereas 19.7% farmers had Kachcha house in the research study area.

Table 4: Distribution of farmers according to the annual income

Annual Income	Frequency	Per cent	Mean Income (Rs)	SD (Rs)
Up to Rs 50000/-	26	8.7	48731	6472
Rs 50001 to Rs 100000	172	57.3	82267	13381
Rs 100001 to Rs 1500000	95	31.7	134211	14556
Rs 1500001 and above	7	2.3	180000	14142
Total	300	100.0	98090	33226

The perusal of Table 4 reveals the distribution of farmers according to family’s annual income, 57.3% farmers belonged to the income group of 50001 to 100000 Rs with mean Income Rs. 82267 and standard deviation Rs.13381, followed by 31.7% respondents whose annual income was between Rs. 100001 to 150000 with mean Income Rs. 134211 and standard deviation of Rs 14556 in the research study area. 8.7% of farmer’s annual income was Up to Rs 50000 with mean income Rs 48731 and standard deviation Rs 6472, whereas only 2.3% of respondents had annual income of Rs 1500000 and above with mean income Rs. 180000 and

standard deviation Rs 14142.

Conclusion

In the study, it was found that farmers in the study region were able to recognize that temperatures have risen, and winter intensity has decreased. There has been a fluctuation in the pattern of rainfall. The present analysis has therefore disproved the climate change, like most of the sample population, is merely a hoax some improvements have been made in relation to various climatic phenomena over the years.

At the local level, there was minimal awareness, knowledge and ability Stage for understanding, discussing, and executing the climate change scenarios. Coping strategies and mechanisms for adaptation were limited. So, first we have to establish a solution to the issue of climate change.

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