

EFFECT OF CLIMATE CHANGE ON HUMAN SETTLEMENT

Swati Singh¹, Mithilesh Verma², Videsh Kumar Verma³

¹Lecturer, Janta College, Bakewar, Etawah

²Asstt. Professor, College of H.Sc., C.S.A.U., Kanpur

³Asstt. Professor, Department of Agri., C.S.A.U., Kanpur

Abstract- The present study entitled, "Climate change Impact on Human Settlement" (2013) was carried in district Unnao to assess impact of climate change. Thus two blocks of Unnao with 120 respondents were selected in this study area. Out of total respondents, 55.1 per cent belonged to 40 to 50 years age group, 35.0 per cent respondents were educated up to intermediate and above, 47.5 per cent respondents belonged to general caste, 88.3 per cent belonged to Hindu religion, 64.2 per cent respondents belonged to nuclear family in which 45.8 per cent respondents have up to 5 members, 69.1 per cent respondents families were engaged in agriculture and their annual family income was between Rs. 1 lac to 1.5 lac, 95.0 per cent respondents were married, 54.2 per cent respondents were belonged up to 2.5 acre of area and 47.5 per cent respondents have pucca houses After studying their in climate change. Knowing about effect of climate change on eye, skin and also knowing about the causes of climate change. Usually, we can look that most of the citizens in rustic area are trying to seek the vegetables produced without chemical fertilizers in addition to we get that these persons like to eat the breads which being cooked on old model dry wooden country style stoves in comparison with LPG gas. It is also observed that they do not want to use chemical mosquito replant instead of these they use to burn the dry leaves of Neem or tits and bits of cow dung cake with straw to ouster the mosquitoes and harmful insects.

Index Terms- Effect, Climate Charge, Human Settlement Skin, Eye.

I. INTRODUCTION

Climate change will occur against a background of other non climate environmental factors and socio-economic factors that could either exacerbate or mitigate the effects of climate change. These other factors may, in many cases, dominate climate change. As compared with the 1990 or 1992 IPCC assessments of impacts, this discussion emphasizes the multiple and interactive pathways by which climate change exacerbates or

mitigates the effects of other events that nations may find important. These interactions could occur in unexpected ways, with small changes having disproportionately large outcomes. Impacts on human settlements from climate change may be indirect, as well as direct. Direct effects of sea-level rise and extreme events are known to be important in coastal zones and island nations. However, many of the impacts on human settlements from climate change are likely to be experienced indirectly through effects on other sectors (for example, changes in water supply, agricultural productivity and human migration). We have high confidence in the importance of these indirect effects because they depend on well-known mechanisms of social interaction rather than data specific to the climate of the future.

II. RESEARCH METHODOLOGY

To complete the above objectives the research methodology employed and the study was conducted in Unnao district during 2012—13, two blocks were selected in the study area. 60 respondents were selected randomly from each block thus 120 respondents were selected. Dependent and independent variables namely age, caste, education, religion, type of family, family size, occupation, marital status, size of land holding and type of house etc. were used. The collected data were subjected to statistical analysis for which statistical tools, percentage, weighted mean and correlation coefficient were used.

III. RESULTS

Table 1 : Distribution of the respondents according to occupation.

Occupation	Frequency	Per cent
Agriculture	83	69.1
Service	23	19.2
Business	2	1.7
Others	12	10.0
Total	120	100.00

Table 1 reveals that distribution of respondents according to occupation, 69.1 per cent of respondents were attached in agriculture, 19.2 per cent respondents were doing service, 10.0 per cent respondents were doing other work like shop keeper, gardening etc. and only 1.7 per cent respondents were doing business.

Table 2 : Distribution of the respondents according to land holding.

Occupation	Frequency	Per cent
Landless	6	5.0
Up to 2.5 acres (marginal)	65	54.2
2.5 to 5 acres (small)	30	25.0
5 acres and above (large)	19	15.8
Total	120	100.0

Table 2 shows that distribution of respondents according to land holding, 54.2 per cent respondents were belonged to up to 2.5 acres of area, 25.0 per cent respondents were belonged to 2.5 to 5 acres of area, 15.8 per cent respondents were belonged to 5 acres and above of area and 5.0 per cent respondents were landless.

Table 3 : Assess the effect of climate change on eye.

Occupation	Yes	No	Score	Rank
Acute photokeratitis and photoconjunctivitis	35.00	65.00	1.35	VII
Climatic droplet keratopathy	61.67	38.33	1.62	IV
Pterygium	25.83	74.17	1.26	VIII
Cancer of cornea and conjunctiva	53.33	46.67	1.53	V
Lens opacity	82.50	17.50	1.83	I
Uveal melanoma	39.17	60.83	1.39	VI
Acute solar retinopathy	74.17	25.83	1.74	II
Macular degeneration	65.83	34.17	1.66	III

Table 3 shows that the effect on eye of climate change, 82.50 per cent respondents were aware about lens opacity with mean score 1.83 ranked I, 74.17 per cent respondents were aware about acute solar retinopathy with mean score 1.74 ranked II, 65.83 per cent respondents were aware about macular degeneration with mean score 1.66 ranked III, 61.67 per cent respondents were aware about climatic droplet keratopathy with mean score 1.62 ranked IV, 53.33 per cent respondents were aware about cancer of cornea and conjunctiva with mean score 1.53 ranked V, 39.17 per cent respondents were aware about uveal melanoma with mean score 1.39 ranked VI, 35.00 per cent respondents were aware about acute photokeratitis and photoconjunctivitis with mean score 1.35 ranked VII and 25.83 per cent respondents were aware about pterygium with mean score 1.26 ranked VIII.

Table 4 : Assess the effect of climate change on immunity and infection

Occupation	Yes	No	Score	Rank
Suppression of cell mediated immunity	55.00	45.00	1.55	III
Increased susceptibility to infection	79.17	20.83	1.79	I
Impairment of prophylactic immunization	29.17	70.83	1.29	IV
Activation of latent virus infection	67.50	32.50	1.68	II

Table 4 reveals that assess the effect on immunity and infection of climate change, 79.17 per cent respondents were aware about increased susceptibility to infection with mean score 1.79 ranked I, 67.50 per cent respondents were aware activation of latent virus infection with mean score 1.68 ranked II, 55.00 per cent respondents were aware about suppression of cell mediated immunity with mean score 1.55 ranked II and 29.17 per cent respondents were aware about impairment of prophylactic immunization with mean score 1.29 ranked IV.

Table 5 : Asses the indirect effect of climate change

Occupation	Yes	No	Score	Rank
Infectious disease	76.67	23.33	1.77	II
Air pollution	93.33	6.67	1.93	I
Predominantly effects on change	45.00	55.00	1.45	IV
Geographical vulnerability	52.50	47.50	1.53	III

Table 5 represents that the indirect effects of climate change, 93.33 per cent respondents were aware about air pollution with mean score 1.93 ranked I, 76.67 per cent respondents were aware about infectious diseases with mean score 1.77 ranked II, 52.50 per cent respondents were aware about geographical vulnerability with mean score 1.53 ranked III, 45.00 per cent respondents were aware about predominantly effect on climate with mean score 1.45 ranked IV.

IV. CONCLUSION

On account, of above mentioned matter we get that citizens in rural area are aware of their environment and health. Indian farmers are trying to cultivate the crops with compost fertilizers. They are also interested to plant the gardens of fruits to achieve cash crop in addition to present the environment pollution. Due to planting they also gain woods to use them as fuel which is also a step to deteriorate to pollution rate, some garden owners also cultivate the agricultural product among the vacate land between the plants because it is seen that the land of garden become more fertile due to leaf rotten in the clay. Even then we look that the new vehicle on the roads, air conditioner, power generators, air traffic etc. disturbing the cycle of climate eg. Hottest summer, bitter winter stormy rain. That is why the human living on the earth should prevent their greed similarly minimize their needs only then the chemistry of climate can rescue other wise there I no power which can avert human race by havoc. Finally, every nation must have very sincere thoughts about the climate of their country and countrymen.

RECOMMENDATION AND SUGGESTIONS

- Install rainwater tanks.
- Reduce the amount of sugar, salt, fat and processed food in your diet.
- Join a group or get together with friends and neighbours to establish local, sustainable community-building networks.
- Establish a community garden and educate yourselves and others about sustainable food practices.
- Organize with others to hold community tree-planting days.
- Create a sustainable 'transition town' to plan for and limit the effects of climate change on your local neighborhood.
- Compost vegetable scraps.

- Detox your home – dispose of unwanted chemicals safely rather than pouring them down the sink or putting them in the rubbish bin.

REFERENCES

- Bakker J. Paulissen, E. Kaniewski, D. Laet, V. de Verstraeten, G. Waelkens, M. (2012). Man, vegetation and climate during the Holocene in the territory of Sagalassos, Western Taurus Mountains, SW Turkey (Special Issue Human landscapes and climate change during Holocene). *Journal of Vegetation, History and Archaeobotany*, **21**(4/5); 249-266.
- Begum, R.A.; Siwar, C.; Abidin, R.D.Z.R.Z. and Pereira, J.J. (2011). Vulnerability of climate change and hardcore poverty in Malaysia. *Journal of Environmental Science and Technology*, **4**(2); 112-117.
- D'Anjou, R.M. Bradley, R.S. Balascio, N.L. and Finkestein, D.B. (2012). Climate impacts on human settlement and agricultural activities in northern Norway revealed through sediment biogeochemistry. *Proceedings of the National Academy of Sciences of the United States of America*, **109**(50): 20332-20337.
- Ford, J.D. and Pearce, T. (2010). What we know, do not know and need to know about climate change vulnerability in the western Canadian Arctic; a systematic literature review. *Environmental Research Letters*, **5** : 1.

- Hamilton, M.C.; Thekdi, S.A.; Jenicek, E.M.; Harmon, R.S.; Goodsite, M.E.; Case, M.P.; Karvetski, C.W. and Lambert, J.H. (2013). Case studies of scenario analysis for adaptive management of natural resource and infrastructure systems (Special issue : Scenario analysis). *Environment Systems and Decision*, **33**(1) ; 89-103.
- Magyari, E.K.; Chapman, J.; Fairbairn, A.S.; Francis, M. and Guzman, M. de (2012). Neolithic human impact on the landscapes of North-East Hungary inferred from pollen and settlement records (Special Issue: Human landscapes and climate change during Holocene). *Journal of Vegetation History and Archaeobotany*, **21**(4/5) : 279-302.
- Maleksacidi, H. and Karami, E. (2013). Social-ecological resilience and sustainable agriculture under water scarcity. *Agro ecology and Sustainable Food Systems*, **37** (3) : 262-290.
- Marinova, E. Tonkov, S. Bozilova, E. and Vajsov, I. (2012). Holocene anthropogenic landscapes in the Balkans : the palaeobotanical evidence from southwestern Bulgaria (Special Issue : Human landscapes and Climate change during Holocene). *Journal of Vegetation History and Archaeobotany*, **21**(4/5) : 413-427.
- Mofidi, S.M. and Ghazi-Jahani, M.M. (2011). Urban eco-form and climate change, strategies for sustainability. *International Journal of Climate Change Impacts and Responses*, **3**(4); 115-126.
- Nunez, T.A.; Lawler, J.J.; Mcrae, B.H.; Pierce, D.J.; Krosby, M.B.; Kavanagh, D.M.; Singleton, P.H. and Tewksbury, J.J. (2013). Connectivity planning to address climate change. *Conservation Biology*, **27** (2) : 407-415.
- Saleh, A.S.M.; Zhang Quing; Chen Jing; Shen Qun (2013). millet grains : nutritional quality, processing and potential health benefits. *Comprehensive Reviews in Food Science and Food Safety*, **12** (3) : 281-295.
- Saravanan, P.; Kumar, S.S.; Daninigo, V. and Charles, A. (2013). Implications of climate change : possible impacts on aquatic food production. *International Journal of Life Science Biotechnology and Pharma Research*, **2** (1) : 38-42.
- Torresan, S.; Critto, A.; Rizzi, J. and Marcomini, A. (2012). Assessment of coastal vulnerability to climate change hazards at the regional scale : the case study of the North Adriatic sea. *Natural Hazards and Earth System Sciences*, **12** (7) : 2347-2368.
- Trinkel, M. (2013). Climate variability, human wildlife conflict and population dynamics of lions *Panthera leo*. *Naturwissenschaften* : **100** (4) : 345-353.