

Indian Journal of Ecology (2019) 46(3): 623-630

Manuscript Number: 2889 NAAS Rating: 4.96

## Public Perception on Climate Change and Its Impacts on Various Aspects: A Case Study of Great Himalayan National Park (India)

## Vandna Devi, M.H. Fulekar and Bhawana Pathak\*

School of Environment and Sustainable Development, Central University of Gujarat, Gandhinagar-382 030, India E-mail: bhawana.pathak@cug.ac.in

**Abstract:** The present study aimed to access the local people's perception of climate change, impact of climate change on the plant diversity, livelihood of the local communities in Sainj and Tirthan valley of Great Himalayan National Park (GHNP), India. A total of 241 households were selected randomly for interview by means of structured questionnaire. Most of respondents of both valleys have perceived that climate change is occurring. Major changes were observed change in temperature (97.5%, 99%), snowfall pattern (100%, 98.3%), rainfall pattern (96.7%, 97.5%) in Sainj and Tirthan valleys, respectively. The respondents of both valleys have reported hampered agriculture production due to changing climate that lead majority of people to change their land use strategies from agriculture to horticulture and from traditional crops to cash crops. Decrease in plant species like *Cedrus deodara* (59.5%), *Pinus wallichiana* (43.8%), *Abies pindrow* (20.66%), *Picea smithiana* (16.53%), Apple (7.44%), *Taxus baccata* (4.96%), *Morchella esculenta* (14.87%) have been observed by local people and the main reasons behind the reduction of these species were over exploitation, deforestation, forest fires and climatic variability according to the inhabitant of the study area. The results of present study provide a robust tool in identifying the impacts of climate change on biodiversity and the livelihood of the local communities and has wider application in designing the appropriate management strategies for mitigating the impacts of climate change on natural resources.

Keywords: Climate change, GHNP, Perception, Biodiversity, Adaptation