



## Earth Science and Climate Change Overview in Context of Human and Natural Causes

Mukesh Singh Boori\*

Dept. of Geo-informatics, Section of Earth Science, Palacky University Olomouc, Czech Republic

Department of Geography, University of Leicester, England, UK

\*Corresponding author: Mukesh Singh Boori, Dept. of Geo-informatics, Section of Earth Science, Palacky University Olomouc, Czech Republic, Tel: +1-3014059049; E-mail: [mukesh.boori@upol.cz](mailto:mukesh.boori@upol.cz)

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### Introduction

OMICS group journals have made significant and long-lasting scientific materials for assessing the potential consequences of earth and climatic changes research work. Efforts using higher resolution, improved physical, chemical, and biological process related research publications, and more precise uncertainty estimates continue to explore potential ecological, social, and economic implications of climatic change. In addition, OMICS group publications in a variety of Earth modeling activities, including geophysical and molecular dynamics representations of the Earth's composition; studying processes involved in using geophysical reservoirs to extract and store carbon dioxide so as to eliminate greenhouse gas from the atmosphere; and detailed examination of clay-mineral interfaces are very valuable. These wide ranging publications have a common emphasis on supporting science mission by providing basic research to underpin the nation's strategy for understanding and mitigating the terrestrial impacts of energy technologies.

OMICS group publications show that earth science and climate change is one of the most pressing issues of our time, and many facets of a warming world – from impacts on farming and food, to the causes of climate change, the potential of sustainable energy to replace fossil fuels, to the slow response of governments worldwide. Now a new climate change minor, gives the opportunity to explore climate change from varied disciplinary perspectives, while getting a firm grounding in the basic physical, ecological and social science as well as its interactions with history, philosophy and the arts [1-5].

Previous OMICS publications mentioned that the global average temperature increased by more than 1.3°F over the last century. The average temperature in the Arctic rose by almost twice as much [6-10]. The buildup of greenhouse gases in our atmosphere and the warming of the planet are responsible for other changes, such as:

- Changing precipitation patterns
- Increases in ocean temperatures, sea level, and acidity
- Melting of glaciers and sea ice

Earth's climate related publication of OMICS highlighting that changing is affect our weather, oceans, snow, ice, ecosystems, and society. Natural disaster and human activities are main cause of these changes. While previous OMICS studies/research publications have assessed the potential magnitude of the impact of climate change on ecosystem services, the assessment of impact likelihood has been up until recently, less common. Where possible, studies have been included that give estimates of either the likelihood of the large-scale event occurring, or the ecological impact, through use of probabilistic

projections or expert judgments. Where appropriate, the year of impact and scenario were cited.

A Number of key uncertainties remain in understanding the impact of large-scale climate-earth changes on ecosystem services and there are a number of other knowledge gaps, which call for further research for OMICS. Such Uncertainties mean it is not possible to state with high confidence the likelihood of the impact of some large-scale changes in the climate system on ecosystem services. For The possible future OMICS publications will related to changes in the large-scale climate earth system, there could be impacts on provisioning, regulating, cultural and supporting ecosystem services [11-17].

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