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## RESEARCH ARTICLE

## CLIMATE CHANGE AND GLOBAL WARMING: A CRITICAL ANALYSIS

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## **ABSTRACT**

Human civilization is undergoing a various cycle of development today than it has been in many more years back. Within this development the geographical, political and physical structure of our planet has changed gradually. The involvement of human in the developmental activities for their own kind caused an imbalance in the natural cycle of the climate within the planet Earth. The cause of overheating and over-cold due to uncertain variations in climatic condition on the human habitation can be clearly seen in agricultural productivity. The famers are drifted towards vicious cycle of poverty due to low productions which creates a big question mark for the security, safety and health of the future generation. The sustainability and green economic development is directly depends on the agriculture and its allied activities which further guarantee the healthy environment for future generation, although it is the only source to sustain humankind in long-run. While deforestation, urbanization, industrial development and modern technological amenities are also responsible for uncertain variation in climate and global warming, but that can be replaced and regain with minimum collective social responsibilities. But the loss which is earn by human society by shifting occupational activities from primary to secondary and tertiary sector will collapse human habitation. On the other hand social animal called human can't deny the comfort ability of modern technological amenities because this gives us daily updates of all information and issues related to planet Earth. So to control climate change and global warming, synchronize between sustainable building designs method, construction methods and modern technology is essential, lack of which will destroy not just some species of animals and plants but human race also. So, researcher tries to sketch the critical analysis of climate change and global worming in human dependency components such as agriculture, living methods, etc.

Key words: Climate Change, Global Warming, Agriculture, rural, Human and technology

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## **INTRODUCTION**

Natural ecosystem balance the cycle of season's natural phenomenon automatically. Certain involvement in it such as deforestations, increasing population, industrial development, and technological development leads to imbalance its auto cycle. With the civilization in human nature, behaviour and methods of survive practically disturb the natural phenomena of cycle. All though that was the need of time but unfortunately mankind still practise the same. Within this development the geographical, political and physical structure of our planet has changed gradually. Along with modern development which allow us to study species present in the deep space, human also welcome the drift from the normal pattern of weather condition to rather harmful and adverse trend as climate is now known to have a negative effect on the environment and invariably on the ecosystem.

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Assistant Professor, Department of Economics, Sikkim Government Law College Burtuk, Gangtok, East Sikkim Sikkim, India. Among other causing components Greenhouse Gases contributes more which warms the Earth atmosphere by reflecting radiation from Earth surface, such as Carbon dioxide, Ozone and Water Vapour (Matawal and Maton 2013). Global warming is directly linked with environment which threatens the well being of both developed and developing countries. As universalization of gender issues in the first phase of modern development, climate change, global warming and its issues able to attract most of the developed countries attention. The third world (developed countries) experience form the past mistakes and they are working on it to solve global warming effects. The long term good health of populations depends on the stability of environment in relation to climate and ecological structure. Therefore developed countries adopt the strategies policies to overcome with adverse effects of climate and pass that knowledge to developing countries to decrease the consequences in near future. Since the effects of climate change and global warming is unpredictable if it continues without specific strategies and proper mechanism. Its impact on health, agriculture, economic development and all other components are directly depends on

nature is beyond the imagination of mankind. In economic sense, the consequences of climate will be worse than the Great Depression of the 1930s. Varies studies that analyse climate data indicate that the average temperature has increased by approximately 0.6°C during the twentieth century (Mimura and others 2007) and in over the 21st century global average temperature is projected to rise by between 2 to 6°C (3.5 to 11°F) form its pre-industrial level (Houghton 2011).

### MATERIALS AND METHODS

This study is based on secondary data which is collected from different study related to this topic. In the race of social, political and economic development, the developing countries lose more from climate change and global warming. These countries are depends on agriculture basically. The historical experience of the industrial developed countries shows that in the long list of potential problems form global warming, the risks to world agriculture capacity stand out as among the most important. The consequences of override the natural and sustainable ecological cycle with modern technological development by third world effects the pace of development on developing countries in term of low agricultural production, high health risk, unhygienic environment etc. Although, the global economy will also comes under the cyclone of natural destruction occurs due to climate change and global warming. Practically, climate change and global warming hit the basic amenities of human kind badly, such as fresh water, food security, productivity of natural resources which is associated with short run problems like health related issues and problems hit the human society in local, regional and global level. The main reason behind this is using of every single natural resources without measuring future consequences.

Other long run effects are raising sea levels, changing weather patterns and extreme weather, pressure on water and food, political and security risks. Here the question arise, how to deal with those negative biophysical impact of climate change for which no clear, practical alternatives exist within the boundaries of our current values and economic system. Failure to address loss and damage on time could leave society unprepared to manage and adjust to these negative climate change impact. The impact of serious fluctuation in climatic condition and increasing temperature of earth surface can be seen from economic prospects as well. Natural phenomenon such as uncertain heavy rainfall, land slide, overheating and over-cold of earth surface, etc, cause the overall performance of agriculture and other livelihood activities of humankind which directly hit the production capacity and lead most of the developing countries towards vicious circle of poverty. The disequilibrium between demand and supply force of global economy caused by shortage of supply of agriculture products will create high inflation rate in local, regional and in global market as well. The increasing price of food in global market will squeeze consumer's income and the aggregate effect of its variation on global economy will most likely be negative in the long run. Mass migration, damage to property and infrastructure, lost productivity and security threats are the primary cause of global warming. Which means the government expenditure will definitely increase that is why today's government investment maximum to reduce future consequences of climate change and global warming through research, policies and formation of agencies to look after the increasing trend on it.

With the imagination of future of humankind in relation to variation in ecosystem causing climate change and global warming, industrial countries and international community are concerned about how to prepare for possible consequences of variation of climate and over warming of Earth. The popularity of importance of natural ecosystem is reach all over the world, from mountain to plains. This wave of social conciseness give birth modern tool called 'Sustainable development' to fight against climate change and global warming. Of course this concept is old and still practises in the last edge of rural habitation especially tribes but it still helpful to compensate the future damage caused by climate change and global warming. Making agriculture is a great challenge, in the it implies that agriculture not only secures a sustained food supply, but that its environment, socio-economic and human impacts are recognized and accounted for within the national development

#### Conclusion

The effect of climate change in agriculture sector is not overestimate in the present increasing trends of population. Food security and food availability is able to attract world policy makers and researchers mind to acknowledge the need of the time. Agriculture is directly to the food processing and distribution which is the major source of employment and income especially in rural areas. But due to climate change most of the farmers experience decline in their production, further employment and income will decrease accordingly. Besides these, various factor called socio-economic factors such as incremental urbanization and rising incomes affect the ability of the food supply to meet its demand. Fischer at al (2002) exhibits a possible increase arable area in higher latitudes and a parallel decrease in low latitudes as a result of climate change. Changes in food production due to climate change have significant consequences in human health through increase in price. Further increase in price, reduce the purchasing capacity of individuals which expected to reduce calorie intake capacity and cause malnutrition problems accordingly. The present climatic variability that is slow and steady may lead to a sudden climate change over a period of time. Its effects are wide which includes environment, socioeconomic condition of mankind, water resources, agriculture and food security, human health, terrestrial ecosystem and biodiversity and costal zones. In the Himalayan region, adaptation of local resources without addition of external remedies by local people through Agro-forestry utilization process prepared them self to face future climate change and other uncertainties. The Agro-forestry utilization process will help us to maintain natural eco-system and create positive impact on environment. Off course this process is used in early days of human civilization but it still have its importance in present time to fight against cause of climate change through sustainable nature.

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