CLIMATE CHANGE: FUTURE IMPLICATIONS AND STRATEGIES

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ABSTRACT

Global Climate as a whole, is a phenomena which is affected or balanced by many interlinked processes of various systems in atmosphere, ocean etc. Previous ice core samples and ocean sediments depicts climate change events in history also. Nevertheless, the present scenario of global warming is supposed to be due to escalating concentration in atmospheric green house gases, which change the heat balance of the earth surface. The recent trend includes in global sea level and northern hemisphere snow cover, rising global mean temperatures and increased extreme climatic events in India during last few decades. Various General Circulation Models have projected the global warming could shift temperature zones, rainfall patterns and agricultural belts. Receding glaciers due to global warming are also reported in case of various studies on Dokriani glacier in Gangotri valley, Parbati glacier in Himachal's Beas basin and other different glaciers. The glaciers are also breaking. The warming may account for about 0.8 to 3 inches of the total expected sea level rise, while the retreat of glaciers and ice may account for about 0.8 to 2 inches.As predicted by the various climate models, by 2100 a rise of 1.8 to 4°C is of 1.8 to 4°C is expected in the average global temperature. Productivity of most cereals would drastically affected due to increase in temperature and decrease in water availability. Increased events of droughts and floods are likely to increase production variability. To mitigate the adverse effect of climate change, conservation of the natural resources and their effective use, proper water conservation techniques and change in the priorities in research and technology should be ensured in future. Adoption of techniques like minimal tillage, residue management and increased production and use of biofules may be helpful in reducing the Green House Gases emission into the atmosphere.