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Title: Need to take effective steps to mitigate the impact of global warming.

SHRI N.S.V. CHITTHAN (DINDIGUL): Climate model projections summarized in the latest Intergovernmental Panel on Climate Change (IPCC) report indicate that the global surface temperature will rise from 1.1 to 6.4 °C (2.0 to 11.5 °F) during the twenty-first century. The uncertainty in this estimate arises from the use of models with differing sensitivity to greenhouse gas concentrations and the use of differing estimates of future greenhouse gas emissions. Some other uncertainties include how warming and related changes will vary from region to region around the globe. Most of the studies focus on the period up to the year 2100. However, warming is expected to continue beyond the year 2100 even if emissions stop, because of the large heat capacity of the Oceans and the long lifetime of Carbon dioxide in the atmosphere.

Increasing global temperature will cause sea levels to rise and will change the amount and pattern of precipitation, including expansion of subtropical deserts. The continuing retreat of glaciers, permafrost and sea ice is expected, with the Arctic region being particularly affected. Other likely effects include shrinkage of the Amazon rainforest and Boreal forests, increase in the intensity of extreme weather events, species extinctions, and changes in agricultural yields.

Human activity since the Industrial Revolution has increased the amount of greenhouse gases in the atmospheres, leading to increased emission of CO<sub>2</sub> Methane, CFCs and Nitrous Oxide.

Further CO<sub>2</sub> concentrations are also continuing to rise due to burning of fossil fuels and land-use change. Accordingly, the IPCC Special Report on Emissions Scenarios gives a wide range of future CO<sub>2</sub> scenarios, ranging from 541 to 970 ppm by the year 2100. Fossil fuel reserves are sufficient to reach these levels and continue emissions past 2100 if coal, tar sands or Methane Clathrates are extensively exploited.

I request the Central Government to take effective steps to mitigate the impact of global warming.