

## **Atmospheric Processes and Climate Impact**

Nana Ama Browne Klutse, Ph.D  
Senior Lecturer | Lead Author, IPCC WG1  
Department of Physics  
University of Ghana  
Legon, Accra, Ghana

### **Abstract**

Knowledge of the processes that occur in the Atmosphere is critical in advancing the understanding of those processes. The Atmosphere is a system of complicated processes. The system gets more complicated by its interaction with other systems like the oceans and the land. The presentation entails processes from the upper atmosphere through the middle to the lower atmosphere. The upper atmosphere holds the concentration of total electron contents that interfere with wave propagation and particularly, radio waves. Radio waves carry radio signal transmission which is used in many areas like in radio telescopes operation, radio frequency transmission, etc. The middle atmosphere experiences gravity waves which are associated with the potential energy of the atmosphere and so with regards to heat, moisture and pollutant transport. The lower atmosphere has the weather and climate processes which are of interest to the dynamics of the earth's climate that involves climate modelling, and climate impact assessment on the society.