Carbon Footprint:

Today, global warming and climate change are increasingly growing concerns, which have a huge array of negative environmental impacts such as melting icecaps, the continuous extinction of various animal species, and overall increase in the earth’s temperature, and more. To find solutions to these problems, the causes must be first identified, which trace back to greenhouse gas emissions from human activities. The amount of greenhouse gas emissions produced by a person or group of people, organization, product, event or any human controlled activity is called the carbon footprint, which would aim to demonstrate the environmental impact of that entity. Conventionally, the measurement of a carbon footprint would involve and algorithm that in some way summed up the emissions of all greenhouse gases calculated and returned as a number, representing the CO2e (carbon dioxide equivalent).

The CO2e is the standard unit used in measuring carbon footprints. The underlying concept behind carbon dioxide equivalent is to express the impact of a certain greenhouse gas as the amount of carbon dioxide it would take to create the same temperature increase. With this, different types of greenhouse gases can be grouped together and compared with a single number. Different greenhouse gases are converted into equivalent amounts of CO2 using standard rations based on the global warming potential (GWP) of each gas. The GWP illustrates each gas’s total warming impact compared to carbon dioxide over a period of time (usually 100 years).