Carbon Footprint:

Today, just about every human activity contributes to the increasing issue of climate change and global warming. All human activities to some extent, have direct and indirect impacts on the environment, through the emission of greenhouse gases. The term “carbon footprint”, is a metaphor used to describe the environmental impact of an entity or activity by estimating its total carbon emissions caused. “Carbon”, does not only refer to carbon dioxide, and includes other greenhouses gases such as methane and nitrous oxide. A carbon footprint does not only consist of direct emissions caused, but also indirect emissions. Direct emissions would refer to the combined emissions of activities that constitute the footprint. On the other hand, indirect emissions are the emissions caused by activities that lead up to the activities that constitute the footprint. For example, the direct emissions of creating a plastic box would include the emissions of all activities happening at the factory where the construction took place. Indirect emissions would include the emissions of the refinery process required to create the oil that supplied energy to the machines that created the box, and so on. In the end, being completely accurate in measuring a carbon footprint is near impossible due to the vast number of factors involved.

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).