

CARBON FOOTPRINT & GREEN GDP

In the modern world, the most relevant and disputed issues are the environmental problems and many institutions came up with different approaches to overcome the natural imbalance. Man-made climate change, or global warming, is caused by the release of certain types of gas into the atmosphere. The emissions of carbon resulted very serious consequences for humans and their environment. For that matter, Carbon Footprint and Carbon Offsetting have become relevant, especially for the understanding of gaseous emissions that led to the climate change.

What is Carbon Footprint?

Carbon footprint can be defined as the total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in equivalent tons of carbon dioxide (CO₂). There are two types of carbon foot printing which are given below:

1. Organisational: Emissions from all the activities across the organisation such as energy use, industrial processes and company vehicles.

2. Product: Emissions over the whole life of a product or service, from the extraction of raw material and manufacturing rights through to its use and final reuse, recycling or disposal.

It is a very powerful tool to understand the impact of personal behaviour on global warming. As we know, **Kyoto Protocol** recognizes six **Green House Gasses (GHGs)** which are given below:

1. Carbon dioxide (CO₂)
2. Methane (CH₄)
3. Nitrous Oxide (N₂O)
4. Hydrofluorocarbons (HFCs)
5. Perfluorocarbon (PFCs)
6. Sulphur hexafluoride (SF₆)

So the release of each of the above gasses would be counted in the Carbon Footprint.

Steps to reduce carbon footprint

1. By replacing a regular light bulb with a compact fluorescent lamp (CFL) which can save 150 pounds of carbon dioxide each year.

2. Use of public transport and carpool: We can reduce carbon emissions through walking, riding bike, carpool and using public transport.

3. We can reduce carbon emissions by using recycled products and recycling materials.

4. Planting a tree is always a good idea. A single tree can absorb one ton of carbon dioxide over its lifetime.

5. By using certified energy efficient appliances and equipment will also reduce carbon footprint.

6. Encourage and support greenhouse-reducing practices in our community.

What is Carbon Offsetting?

Carbon Offsetting can be defined as the mitigation of carbon footprints through the development of alternative projects such as solar, wind, tidal energy or reforestation. The emission of greenhouse gasses is a global problem and carbon offsets work on the idea that any reduction in any area is worthwhile. It basically measures how much carbon dioxide (CO₂) we have produced just by going about our daily lives.

The concept of Green GDP and Ecological Debt

All the uses of biodiversity, ecosystem services and resources like mineral deposits, soil nutrients, and fossil fuels are capital assets, but it is not included in national account or GDP (Gross Domestic Product). It is just because they are capital assets and their monetary measures are not calculated on the market value. The concept of **Green GDP** came to incorporate or registered corresponding decline in assets (wealth) as a positive gain in GDP (gross national product) whereas the **Ecological Debt** refers to the consumption of resources from within an ecosystem that exceeds the system's regenerative capacity.

What is Green GDP?

Green GDP is a term used generally for expressing GDP after adjusting for environmental damage. In other words, Green GDP is a monetization of the loss of biodiversity caused by climate change. It is calculated by subtracting resources depletion, environmental degradation from the traditional GDP figure. It is very helpful for managing economies as well as resources.

It is expected to account for the use of natural resources as well as the costs involved. It also includes medical costs generated from factors such as air and water pollution, loss of livelihood due to environmental crisis such as floods or droughts, and other factors.

It is indicator of not only how a country is prepared for the sustainable economic development but also the Waste per capita or Carbon Dioxide emissions growth/decline. This concept was introduced by the China by publishing its first green GDP data for the year 2004 in 2006.

What is Ecological Debt?

The concept of ecological debt emerged from the 1990s within social movements driven by rising environmental awareness, emerging Western consciousness of responsibility for past colonial subjugations, and a general sense of unease during the debt crisis. It referred to as the level of resource consumption and waste discharge by a population in excess of locally sustainable natural production and assimilative capacity.

It is built upon a theoretical foundation that draws on biophysical accounting systems, ecological economics, environmental justice and human rights, historical injustices and restitution, and an ecologically-oriented world-system analysis framework. It arises due to the exports of raw materials and other products from relatively poor countries or regions being sold at prices which do not include compensation for local or global externalities; and rich countries or regions making disproportionate use of environmental space or services without payment (for instance, to dump carbon dioxide).