



Carbon Intensity

[Source: TH](#)

Carbon intensity measures the amount of **carbon dioxide (CO₂) emitted per unit of output in a specific sector or economy**. It helps track progress in **reducing emissions** while accounting for economic growth or production levels.

- For example, the carbon intensity of the steel sector can be measured as the number of tonnes produced per tonne of CO₂ emitted.
- **National Carbon Intensity:** A country's **carbon intensity** is measured by **dividing [Gross domestic product \(GDP\) growth per capita](#) by [CO₂ emissions](#)**.
- **Significance for India & Climate Goals:** Carbon intensity plays a crucial role in assessing climate commitments under the [Paris Agreement \(2015\)](#) and reducing **Emissions Intensity of its GDP by 45% by 2030**, from 2005 level.
 - Carbon intensity supports sustainable economic growth while lowering environmental impact.

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CARBON FOOTPRINT

Carbon footprint refers to the total amount of greenhouse gas emissions that are directly or indirectly caused by an individual, organization, or product.

Units: Carbon footprint is usually measured in terms of carbon dioxide equivalent (CO₂e), which is a standard unit used to express the total amount of greenhouse gas emissions.

Scope: Carbon footprint measures the impact of our daily activities on the environment.

Impact: Reducing carbon footprint can help to reduce the total amount of greenhouse gas emissions associated with an individual, organization, or product.

Two important concepts in the context of climate change.

By reducing our carbon footprint, we can reduce the overall carbon intensity of the systems and products we use.

Vary between and within countries and are affected by a range of factors such as income, demographics, settlement structures, and lifestyles

Reducing both carbon footprint and carbon intensity is crucial to mitigating the impacts of climate change.

CARBON INTENSITY

Carbon intensity measures the amount of carbon dioxide emitted per unit of economic activity. It is a measure of the efficiency of an economy or a sector in terms of its greenhouse gas emissions.

Units: Carbon intensity is usually measured in terms of tonnes of CO₂e per unit of GDP or per unit of energy use.

Scope: Carbon intensity measures the overall efficiency of a system or product. In other words, it considers the larger picture of emissions and looks at ways to reduce them on a larger scale.

Impact: Reducing carbon intensity can help to improve the efficiency of an economy or a sector.



Read more: [India's Carbon Market: A Green Leap Forward](#)

PDF Reference URL: <https://www.drishtias.com/printpdf/carbon-intensity>