Carbon Footprint

Table Of Contents

History Of Carbon Footprint?

- The carbon footprint concept extends from "ecological footprints" by ecologist William Rees in the 1990s.
- It quantifies GHG emissions tied to organizations, events, products, or individuals. It gained prominence in 2005, notably through a BP media campaign.

Carbon Footprint

- A carbon footprint represents the collective greenhouse gas emissions, both direct and indirect, associated with human activities.
- Typically, it's quantified in equivalent tons of carbon dioxide (CO2). This calculation typically covers a one-year timeframe.

Types Of Carbon Footprints

Organisational

Include the emissions in making of a product (include only Direct emissions)

Value chain

Include the emission in making as well as transport of product (include only Direct emissions)

Product

Include the emission in procurement of raw materials, making and transport (include Direct and indirect emissions)

Global Warming Potential (100 Years

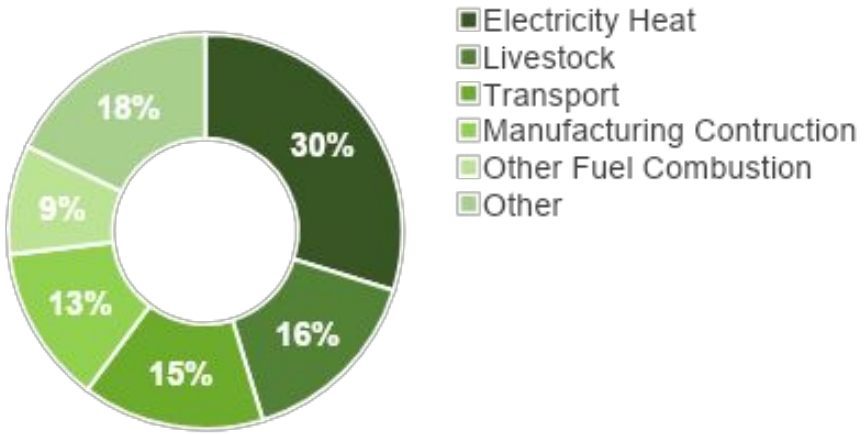
Carbon dioxide (CO2)	1
Methane (CH4)	21
Nitrous Oxide (N2o)	310
Hydrofluorocarbons (HRCs)	5000
Perfluorocarbons (PFCs)	7500
Sulphur hexafluoride (SF6)	23900

Carbon Equivalents

42

Gigatonnes of
CO_2 Equivalent

Human Induced
Greenhouse Gas
Emissions



Basic Calculation

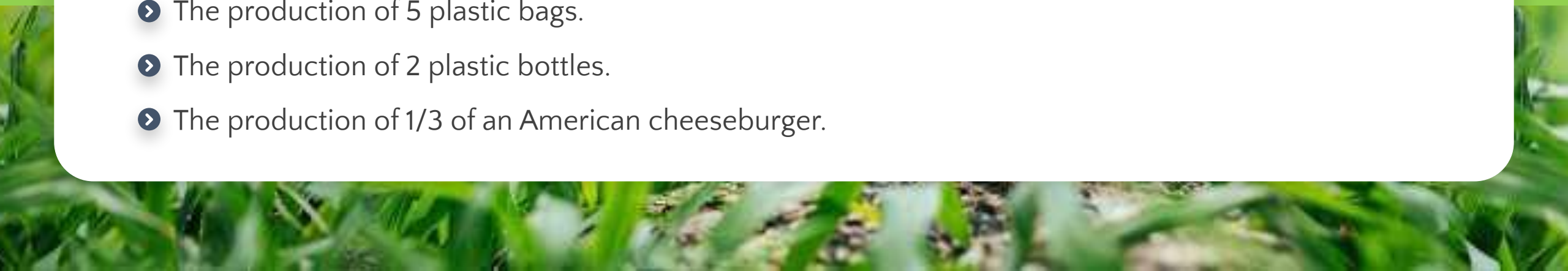
Fuel	Unit	CO2 emitted per unit
Petrol	1 litter	2.3 kg
Gasoline	1 litter	2.3 kg
Diesel	1 litter	2.7 kg
Oil (heating)	1 litter	3.0 kg

If your car consumes 7.5 liter diesel per 100 km, then a Idrive of 300 km distance consumes 3 x 7.5 = 22.5 liter - diesel, which adds 22.5 x 2.7 kg = 60.75 kg CO2 to your personal carbon footprint.

Personal Carbon Footprint

Each of the following activities contributes 1 kg of CO2 to your personal carbon footprint:

- Travel by public transportation (train or bus) for a distance of 10 to 12 km (6.5 to 7 miles).
- Drive your car for a distance of 6 km or 3.75 miles (assuming 7.3 liters of petrol per 100 km or 39 mpg).
- Take a 2.2 km or 1.375-mile flight.
- Operate your computer for 32 hours (assuming a 60 Watt consumption).
- The production of 5 plastic bags.
- The production of 2 plastic bottles.
- The production of 1/3 of an American cheeseburger.



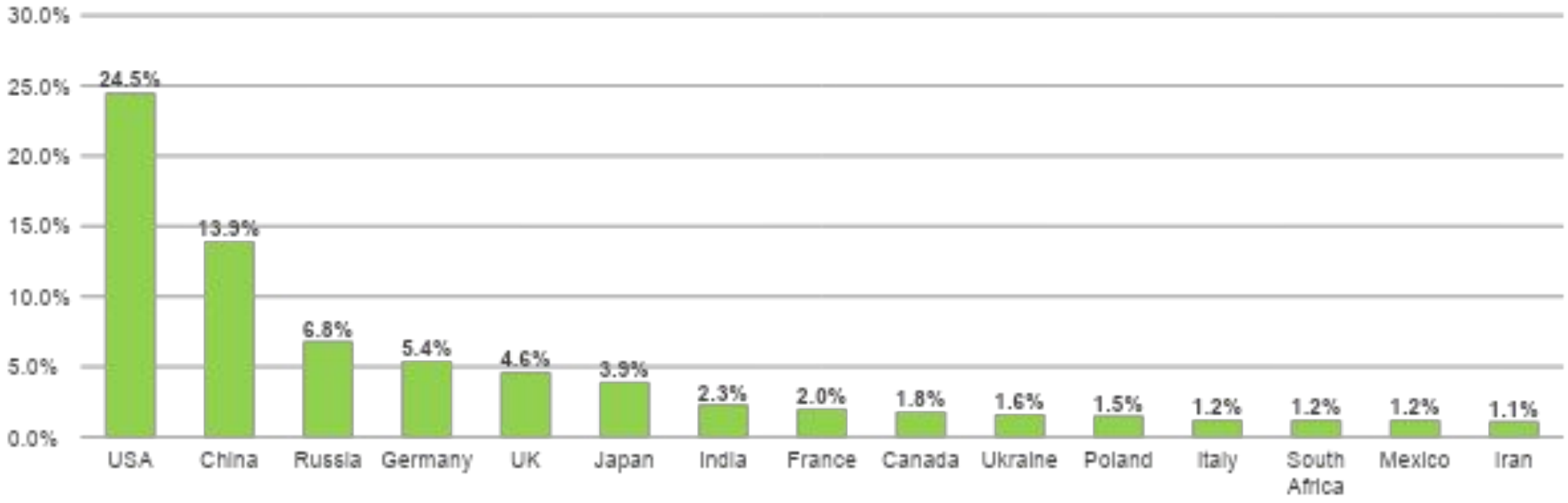
What Is GHG?

Greenhouse gases are those that can absorb and emit infrared radiation. In order, the most abundant greenhouse gases in Earth's atmosphere are:

Gas	Formula	Contribution (%)
Water Vapour	H_2O	36-72%
Carbon Dioxide	CO_2	9-26%
Methane	CH_4	4-9%
Ozone	O_3	3-7%

CO_2 Emissions Countries, 1750–2020

(from fossil fuels and cement



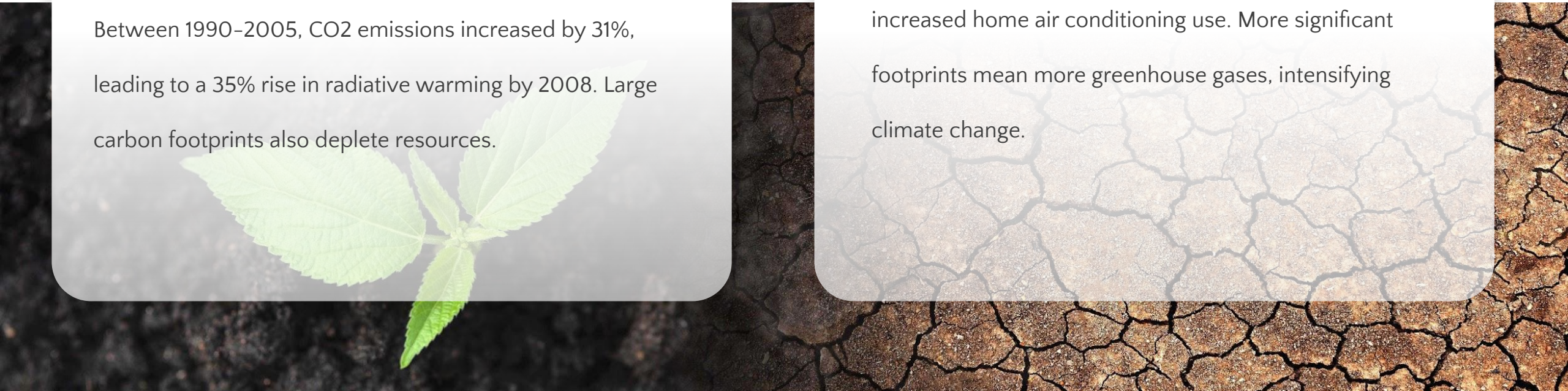
Main Effects

Climate Change

Climate change is the result of substantial carbon footprints, caused by natural and human-generated greenhouse gases. Between 1990-2005, CO2 emissions increased by 31%, leading to a 35% rise in radiative warming by 2008. Large carbon footprints also deplete resources.

Depletion of Resources

Significant carbon footprints deplete resources on various scales, from deforestation on a national level to increased home air conditioning use. More significant footprints mean more greenhouse gases, intensifying climate change.




Emissions
H_2O
CO_2
Fuel
Electricity
Gas
Transport
Offsets
Recycling
Waste

Sustainable Food Choices

01

Local Produce

Support local farmers and reduce food miles.

02

Organic Options

Choose organic products with reduced chemical usage.

03

Plant-Based Diets

Opt for plant-based meals to reduce carbon emissions.

04

Minimal Food Waste

Avoid food waste to reduce landfill emissions.

Conclusion

Reducing our carbon footprint is essential for a sustainable future. Each small effort, collectively, makes a significant impact in combating climate change and preserving our planet.

THANK YOU

BUILDING A SUSTAINABLE FUTURE

PRESENTATON