

International Sweetener Colloquium

Session IV: Carbon Footprint in the Sweetener Sector

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Overview

➤ Carbon Footprint -

- Carbon Footprint aka Carbon Life Cycle Assessment
- a subset of a Life Cycle Assessment
- an aggregation of the amount of greenhouse gas (CO₂e) associated with an organization, event or product
- Two types, primary (direct emissions) and secondary (indirect emissions)

Overview

➤ Life Cycle Assessment (LCA) -

- A cradle-to-grave approach for assessing industrial systems that looks at all impacts to land, water and air
- Conceptualized in the 1960's due to concerns about the limitations of raw materials and energy use
- In 1969, Coca Cola Company researchers laid down the foundations for current LCA's while looking at different beverage container options

Overview

➤ Life Cycle Assessment (LCA) -

- In the 1970's LCA's were known as Resource and Environmental Profile Analysis (REPA) in the US and in Europe as Ecobalance
- In the late 1980's LCA's were used to analyze solid waste issues and the methodology improved

Overview

- Life Cycle Assessment (LCA) -
 - In 1991, eleven State Attorneys General denounced the use of LCA's in marketing claims because they were not standardized
 - Ultimately LCA methodologies were standardized under ISO 14000 (1997-2002)
 - Today, LCA's are promoted and embraced by the United Nations Environment Programme (UNEP) and many others

Overview

- Why do a Carbon Footprint or LCA?
 - Can lead businesses to better or greener products and processes
 - Can improve a company's bottom line
 - It is consistent with a corporate philosophy, image or reputation
 - Your customers/consumers demand it
 - It is the first step to reduce GHG emissions which can help mitigate regulatory impacts

Overview

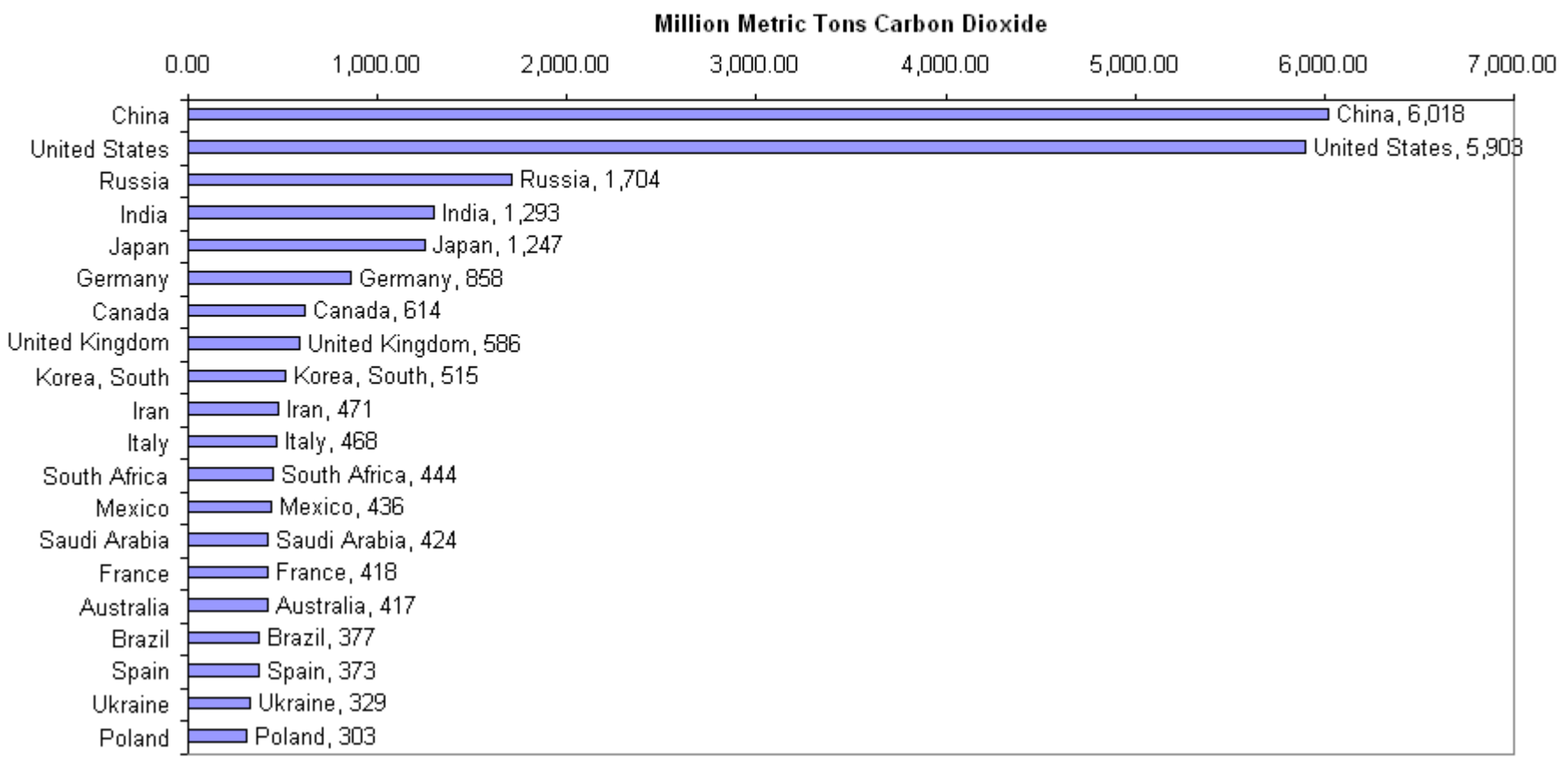
- Who is doing Carbon Footprints or LCA's?
 - According to CO2Benchmark.com, they have 3000 companies and organizations footprints in their global database
 - Fluid milk industry (UD and other countries)
 - The cheese industry (US)
 - Many CPG companies

Overview

- Carbon Footprint Factoids (CO₂e):
 - A Google search - 7 grams (Harvard estimate)
 - A cheeseburger - 3,100 grams
 - A gallon of gasoline - 8,700 grams
 - A cold delicious glass of Milk - about 600 grams (literature review)
 - Six pack of Fat Tire Beer - 3,265 grams

Overview - Global CO2e Emissions

Top 20 Countries
2006 CO2 Emissions



Source: Union of Concerned Scientists

Thank you

