

Business Sustainability- Challenges & Realities



Sustainability

A difficult concept for business



Brundtland Definition

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.



Sustainable Development

Hunter-Gatherers

GDP as scorecard



Kaya identity

$$F = P * (G / P) * (E / G) * (F / E) = P * g * e * f$$

F is global CO₂ emissions from human sources,

P is global population,

G is world GDP and,

E is global primary energy consumption.

$g = (G/P)$ is global per-capita GDP,

$e=(E/G)$ is the energy intensity of world GDP, and

$f=(F/E)$ is the carbon intensity of energy.



Agenda- while we wait for clarity

The technological fix

Business leader's role

The unique opportunity for
carbon based materials



Technology and limits

IEA Chief Technology Officers

Benevolent Dictator



IEA Chief Technology Officers- What is your equivalent?



You as business leaders- WBCSD Vision 2050

Incorporating the costs of externalities, starting with carbon, ecosystem services and water, into the structure of the marketplace

doubling agricultural output without increasing the amount of land or water used
halting deforestation and increasing yields from planted forests

halving carbon emissions worldwide

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Carbon based materials

Stocks, flows, & sequester

Byproduct powered

Renewable



Customers of hunter gatherers

Intensively managed forest plantations



Thank you.

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You as business leaders- WBCSD Vision 2050

Vision 2050 spells out the “must haves” – the things that must happen over the coming decade to make a sustainable planetary society possible. These include incorporating the costs of externalities, starting with carbon, ecosystem services and water, into the structure of the marketplace; doubling agricultural output without increasing the amount of land or water used ; halting deforestation and increasing yields from planted forests: halving carbon emissions worldwide (based on 2005 levels) by 2050 through a shift to low-carbon energy systems and improved demand-side energy efficiency, and providing universal access to low-carbon mobility.

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