

Climate change and business opportunities

What are the main categories of climate-related risks for businesses?

- Physical risks
- Operational risks
- Regulatory risks
- Financial risks
- Market risks
- Political risks
- Reputational risks

what is maladaptation in the context of corporate actions.

Actions increase vulnerability to climate impacts rather than reduce it

Identify two strategic opportunities for companies investing in climate change adaptation.

- Cost Savings: Reducing operational expenditures through efficiency improvements
- Market Expansion: Tapping into new markets via innovative adaptation solutions.

How does engaging with vulnerable communities relate to corporate reputation?

- Good Corporate Citizenship: Enhances reputation by solidifying links between business activities and community needs
- Stakeholder Benefits: Increases goodwill among customers and investors

Waste Management

What is the primary goal of waste management systems?

- Protect public health, environment
- and ensure sustained economic growth.

Identify two main types of waste generated from industrial processes.

- Construction and demolition waste
- Hazardous waste (e.g., chemical synthesis, radioactive waste)

How has urbanization impacted waste production?

Increased population and industrialization lead to higher waste generation

Define common-pool resources and provide two examples.

Nonexcludable (or non-exclusive) but rival in use.

Examples:

- Water in rivers, anyone can use it but it is limited
- Ocean fisheries, anyone can fish but it is limited

Explain the “tragedy of the commons” concept.

- Individuals acting in self-interest deplete a shared resource.
- Results in overconsumption and resource depletion

What are the challenges in managing common-pool resources?

- Overexploitation. (focus on own benefit)
- Lack of cooperation among users

What is negative externality?

A negative externality is a cost of an action that affects others but not the person doing it.

What is positive externality?

A positive externality is a benefit of an action that affects others but not the person doing it.

Discuss public policy solutions for addressing negative externalities.

- Imposing taxes or implementing regulations.
- Aims to align private costs with social costs

LCA

Define Life Cycle Assessment (LCA) in your own words

- Systematic evaluation of environmental impacts.
- Analyzes inputs/outputs throughout a product's life.
- Includes stages from resource extraction to disposal.

What are the four stages of LCA?

- Goal & Scope Definition
- Inventory Analysis (LCI)
- Impact Assessment (LCIA)
- Interpretation

List the four general stages of LCI.

- Raw material acquisition
- Production
- Usage
- End-of-life disposal

What are the four main components of an LCA Scoping

- Goal and Scope Definition
- Functional Unit
- System Boundaries
- Assumptions and Limitations
- Allocation Methods
- Impact Categories

What is Ecological Footprint?

An ecological footprint (EF) shows how much land is needed to support a person, city, or country's:

- Resource use (land and water)
- Waste disposal

What is equivalence factor in ecological footprint calculations?

- measure of productivity of different types of land
- reported as gha (global hectares) per unit of land

Three scope of carbon footprint

- Scope 1: Direct emissions (from sources owned or controlled by the organization)
- Scope 2: Indirect emissions (from purchased electricity, heat, or steam)
- Scope 3: Indirect emissions (from sources not owned or controlled by the organization)

Sustainability Entrepreneurship

Describe the characteristics of the first wave in the three-wave typology of business response to sustainability issues.

- Focuses on risk management.
- Aims to avoid noncompliance consequences.
- Identifies cost-reduction opportunities through process efficiency

Describe the characteristics of the second wave in the three-wave typology of business response to sustainability issues.

- Recognizes sustainability as a **strategic necessity**.
- Awareness of **long-term implications** of environmental issues.
- **Opportunities** for market differentiation and innovation.

Explain the ultimate goals of the third wave in the typology.

- Reinterprets corporations as integral to societal and ecological systems.

A journey of five stages on the path to becoming sustainable

- Viewing compliance as opportunity
- Making value chains sustainable
- Designing sustainable products and services
- Developing new business models
- Creating next-practice platforms