

Sustainable Consumption and Production



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Definitions:

- **Sustainable Consumption** refers to the use of services and goods that meet our basic needs and improve quality of life, without compromising the needs of future generations. It involves efforts to reduce the consumption of natural resources and harmful substances, as well as minimizing pollution emissions throughout the product or service life cycle.
- **Sustainable Production** is the process of creating products and providing services in a manner that does not degrade the environment, conserves resources, is economically viable, safe for users and workers, socially and creatively satisfying, and does not pollute the production processes and systems.

Definitions:

- **Overproduction** occurs when the quantity of products produced by factories and agriculture exceeds what consumers can actually buy or use. This results in a surplus of goods on the market, which can lead to falling prices, factory closures, and worker layoffs. This cycle can lead to poverty and a lack of availability of goods.
- **Overconsumption**, on the other hand, happens when ecosystems are exploited beyond their natural capacity to regenerate. This leads to the depletion of natural resources, such as forests, fish, soil, minerals, and water, negatively affecting ecosystem function, destroying habitats, and endangering many species that contribute to a sustainable ecosystem.

Consumerism

Consumerism refers to the tendency of societies to excessively and uncontrollably consume goods and services.

Causes of this phenomenon include:

- Culture and social pressure
- Advertising and marketing
- Availability of goods
- Lifestyle changes
- Economic growth

Consumerism

- **Impacts of Consumerism:**
 - Environmental destruction
 - Social problems
 - Mental health issues
 - Resource depletion
 - Economic impact

Consumerism Patterns:

- The first is the linear consumption model, where we buy, use, and dispose of products that have a short life cycle, often using "virgin" resources, and are designed to wear out quickly and be replaced with new ones. The lack of producer responsibility means that consumers are responsible for waste disposal, increasing pressure on individuals, communities, or states, while there is little incentive for producers to create more sustainable products.
- The second factor is economic models focused on the constant growth of production and consumption of goods and services in the economy. In the current model, which is inefficient, this means an increase in the use of natural resources, which has an escalating impact on the environment.

Consumption and Production Patterns:

- The third is the "externalization" of costs associated with environmental degradation, such as climate change, depletion of natural resources, or pollution. These costs are not included in the product price but are transferred to the community and the state, making unsustainable development seem cheaper. Some unsustainable products even become more affordable, often due to subsidies for fossil fuels, further entrenching these patterns.



Production Methods that Generate Negative Environmental and Social Effects:

- Intensive extraction of raw materials
- Monoculture farming
- Industrial livestock farming
- Artificial chemical production
- Industrial processes
- Plastic extraction and production
- Unsustainable energy production

How Can We Save on Excessive Use of Natural Resources?

Individuals and organizations can take various actions to limit the excessive use of natural resources.

Non-investment and organizational actions:

- Eliminating losses and waste: By educating and engaging employees, it is possible to identify areas where losses and waste occur. Appropriate behavior and work organization can result in significant reductions in resource use.

Investment and organizational change actions:

- Changing technology and processes: Investments in modern technologies, production processes, or product renewal can significantly reduce the consumption of raw materials and energy.
- **Redesigning Products:** Designing products to minimize material and energy use throughout the product's life cycle, facilitating recycling, and reducing the use of harmful substances.

Reducing Excessive Use of Natural Resources

Reducing excessive use of natural resources is crucial for both the environment and humanity as a whole. Effective resource management can reduce pressure on the natural environment and improve resource sustainability for future generations.

Benefits:

- Maintaining sustainable resource balance
- Minimizing negative environmental impact
- Economic efficiency
- Supporting sustainable development
- Technological innovations

Factors Affecting the Problem of Unsustainable Consumption and Production:



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Food Waste

Food Waste: Food waste occurs at various stages of production and distribution, from farms to retailers and consumers. It can be caused by various factors, such as mold or pest damage, improper storage conditions, and intentional food disposal.

Benefits of Reducing Food Waste:

- **Cost savings:** Improving efficiency in food processing and storage can lower labor and purchasing costs.
- **Reduced greenhouse gas emissions:** Reduction in food waste will contribute to lower methane emissions and carbon footprint.
- **Better resource management:** Reducing waste means fewer resources are destroyed, leading to less pollution and energy use associated with production and transportation.
- **Social benefits:** Food that is not thrown away can be donated to charities, helping to meet the food needs of local communities.

Overproduction

Overproduction is a state where the supply of a particular good or service exceeds current demand. It's like a story of too many actors on a small stage—when supply exceeds demand, a surplus of products is created, leading to price drops and often disappearing profits. Causes of overproduction can vary: from errors in demand forecasting to declining interest due to economic conditions

Benefits:

- Resource conservation
- Inventory management
- Quality improvement
- Production flexibility
- Environmental protection
- Economic stability
- Employee satisfaction

Social Expectations Related to Consumption

Current consumption patterns are a major cause of environmental problems. However, the assumption that improving quality of life requires greater consumption somewhat limits policies aimed at changing consumption patterns.

Causes:

- Pressure for social status
- Consumerist culture
- Pressure to conform to trends
- Lack of consumer education
- Excessive resource consumption
- Pollution emissions
- Deforestation

Impact of Consumption and Production on the Environment

- Public health
- Food security
- Poverty and social inequality



Circular Economy

The circular economy model aims to replace the current linear economic approach, which relies on constant resource extraction, production, and eventual waste. This new model focuses on efficient resource use, especially emphasizing renewable raw materials. The goal is to maximize the use of each product, extend its life to extract as much value as possible, and recover and reuse by-products and waste by creating new materials or products.

Examples of Circular Economy Indicators:

- Percentage of recycled materials used in the economy.
- Amount of waste produced.
- Sankey diagram illustrating the flow of raw materials in the economy, from their acquisition to becoming waste. In the circular economy model, this flow is closed.
- The European Union's circular economy monitoring framework, based on 10 indicators divided into 4 characteristics of the CE model: production and consumption, waste and secondary raw materials management, competitiveness, and innovation.
- The European Union's circularity indicator, calculated by Eurostat, which determines the level of materials recovered and reintroduced into the economy.

Sustainable Supply Chain

- A sustainable supply chain is a system that integrates elements of the traditional goods delivery process with environmental protection aspects. The goal is to minimize the negative impact on the ecosystem at various stages of the logistics process. Applying this approach requires a holistic view of the entire supply chain, which in turn brings many benefits.

Sustainable Consumption—What Can We Do as Green Leaders?

- Analyze your daily shopping habits
- Carbon footprint and resource use
- Choose eco-friendly products
- Sustainable eating habits
- Use eco-friendly bags
- Proper waste segregation
- Alternative transportation
- Saving water and energy
- Technological solutions
- Education and setting an example for others

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