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A Detailed Concept Review of Sustainable Consumption and Production with Special Reference to The United Nations Sustainable Development Goal 12

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Abstract

The world is experiencing immense environmental deterioration and other related issues and thus, in the past few decades the concept of sustainable consumption along with sustainable production is gaining prominence. From the many reasons which leads to environmental and other issue suntenable consumption and production is one of the major reasons causing these challenges. Thus, the concepts of sustainable consumption and production has emerged as a critical concept in addressing the global environmental, social, and economic challenges. Although the concepts of sustainable consumption and sustainable production are now a part of our everyday conversation but majority of us have a very vague idea related to these concepts. Therefore, this research paper explores the concept of Sustainable Consumption and Production, its significance, and the various strategies and practices that can contribute to more sustainable consumption and production patterns. The paper reviews the key drivers, barriers, and policy frameworks that influence Sustainable Consumption and Production, with an emphasis on its relevance to achieving the United Nations Sustainable Development Goals (SDGs), particularly Goal 12: Responsible Consumption and Production. By examining contemporary examples, research papers and case studies, this paper seeks to provide insights into the practical application of Sustainable Consumption and Production principles and highlight the roles of governments, businesses, and consumers in fostering a sustainable future.

Key Words: SDG, Sustainable Consumption, Sustainable Production

Introduction

A number of present environmental problems can be linked to consumer lifestyles. More sustainable lifestyles cannot be achieved without marking changes in consumer attitudes and behaviour [5]. Anderson and Challagalla [4] state that "we live in a global village and can ill afford the negative legacy of consumption". However, consumption need not be equated with environmental devastation and the squandering of natural resources.(Lau, 2010)

In 1983, the United Nations General Assembly established the World Commission on Environment and Development, an independent group of twenty-two members led by Gro Harlem Brundtland, the Prime Minister of Norway. The commission was tasked with examining global environmental and developmental issues through the year 2000 and beyond. Its goal was to assess critical challenges, propose realistic solutions, and raise awareness and commitment to environmental and development concerns. Instead of presenting a grim outlook on the depletion of natural resources, the commission's report, Our Common Future, promotes an agenda that encourages economic growth through policies that not only avoid harm to the environment but can also enhance it. The commission emphasizes the need for integrating economic and ecological considerations to ensure continued human progress without depleting the resources available for future generations. They defined sustainable consumption as "Sustainable consumption can be undertaken in such a way that needs are met for present-day humans and also for future generations". (World Commission on Environment and Development (1987). Our common future. Oxford: Oxford University Press. ISBN 978-0192820808. OCLC 15489268.)

The concept of Sustainable Consumption and Production revolves around the efficient use of resources and the minimization of environmental impact while maintaining economic and social equity. Sustainable Consumption and Production aims to achieve a balance between human development needs and environmental preservation, acknowledging that the current



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patterns of consumption and production are unsustainable and contribute to resource depletion, pollution, and social inequality. Sustainable Consumption and Production is essential in achieving a sustainable future, as it ensures that the demands of the present do not compromise the ability of future generations to meet their needs.

Defining Sustainable Consumption and Production (SCP)

The concept of responsible consumption (RC) views consumption as a tool with varying environmental and social impacts. As Fisk (1973) defines, RC is all about making the best possible use of the world's limited resources to support humanity on a global scale and according to the United Nations (2015), RC is "doing more with less, enhancing net welfare gains from economic activities by reducing resource usage, degradation, and pollution throughout the lifetime". (Nangia et al., 2024)

Sustainable Consumption and Production (SCP) refers to the use of resources and energy in ways that minimize environmental impacts, maximize economic benefits, and ensure social equity. It involves a wide range of strategies, including:

Resource Efficiency: Using natural resources such as water, energy, and raw materials in a manner that reduces waste and environmental impacts while maintaining or increasing productivity.

Circular Economy: A model that focuses on reusing, recycling, and repurposing products, materials, and components to reduce waste and promote the long-term sustainability of resources.

Eco-design: Creating products with minimal environmental impact over their entire life cycle, from production and use to disposal.

Behavioural Change: Encouraging individuals and organizations to make more sustainable choices through education, incentives, and policies.

Goals and targets of SDG 12

The United Nations' 2030 Agenda for Sustainable Development emphasizes Sustainable Consumption and Production as a central driver of environmental and economic transformation. Specifically, Sustainable Developmental Goal 12 urges nations, businesses, and individuals to adopt sustainable consumption and production patterns to reduce the ecological footprint and ensure resource efficiency for future generations.

The sustainable Development Goal 12 adequately elaborates the scope of responsible consumption and production. It elucidates that our planet has blessed us with an abundance of natural resources, yet we have not used them wisely. We are currently consuming far beyond the Earth's capacity to regenerate, leading to environmental degradation. It is imperative that we shift toward more responsible and sustainable consumption and production practices to repair the damage we have caused and ensure a healthier planet for future generations.

By studying the goals and targets of the SDG 12 we have come to the following interpretations: 12.1 Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

This target calls for the global implementation of the 10-Year Framework of Programmes (10YFP) on Sustainable Consumption and Production (SCP). The framework requires all countries to actively engage in sustainable practices, with developed nations taking leadership roles. However, the implementation must also consider the unique developmental needs and capabilities of developing countries to ensure that the transition toward sustainable practices is inclusive and equitable. Developed countries are expected to lead by example, while supporting developing countries in their efforts through technology transfer, financial aid, and capacity-building.



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12.2 By 2030, achieve the sustainable management and efficient use of natural resources.

It underscores the importance of resource efficiency and conservation practices in industries and communities. This will require a shift toward using fewer resources, reducing waste, and improving production technologies to minimize the ecological footprint.

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.

Food waste is a critical global issue, contributing to environmental degradation, economic loss, and food insecurity. Reducing food waste means optimizing the entire food supply chain from production to consumption, as well as educating consumers and industries on how to reduce waste and improve efficiency.

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

It reflects the urgency of addressing chemical pollution, which poses risks to ecosystems and human health. Proper waste management and chemical handling practices are needed, alongside international collaboration to enforce standards and mitigate negative impacts.

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

It calls for a systemic shift in how society views and handles waste. By focusing on waste prevention, enhanced recycling systems, and reuse practices, this target aims to create a circular economy that minimizes resource extraction and reduces landfill waste.

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

This is a call to corporate responsibility, asking businesses to not only mitigate their environmental impacts but to also disclose these efforts transparently. Sustainability reporting will allow stakeholders, investors, and consumers to make informed decisions and encourage businesses to improve their practices over time.

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

Public procurement refers to the purchasing of goods and services by government bodies. It emphasizes that governments should lead by example and purchase environmentally friendly and socially responsible products and services. It also promotes the integration of sustainability criteria into public procurement processes to drive demand for sustainable goods.

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

Education and awareness campaigns are crucial to changing consumption habits. It aims for global awareness-building initiatives that promote sustainable living by helping individuals make informed choices about what they consume, how they travel, what they buy, and how they use resources.

12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.

Developing countries often face challenges in adopting sustainable practices due to limited access to technology and knowledge. It advocates for capacity-building efforts, including technology transfer, education, and access to green technologies, enabling these countries to leapfrog towards more sustainable development paths.



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12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.

Sustainable tourism can contribute to local economies without compromising the environment or cultural heritage. Monitoring tools will help assess tourism's impact, ensuring that it supports local communities, preserves cultural identity, and minimizes negative environmental consequences.

12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful accordance consumption bv removing market distortions, with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

Many market systems still incentivize unsustainable practices, particularly through fossil fuel subsidies, which artificially lower the cost of polluting activities. This calls for policy reforms to make the price of goods and services more reflective of their environmental impact, encouraging consumers and businesses to adopt more sustainable choices while protecting the most vulnerable populations. (Transforming Our World, n.d.)

Drivers of Sustainable Consumption and Production

It is being observed that there are several drivers which has influenced the shift towards more sustainable consumption and production patterns.

Advances in green technologies, such as renewable energy sources, energy-efficient appliances, and sustainable production techniques, have made it easier to reduce environmental impacts while maintaining economic productivity.

The consumers have become more aware and informed about the environmental and social consequences of their purchasing decisions. They are now concerned about the various products and their production processes. They are interested in buying those goods which are sustainably and ethically produced.

Governments play a crucial role in shaping Sustainable Consumption and Production by implementing policies that incentivize sustainable practices, such as carbon pricing, waste reduction regulations, and environmental labelling systems.

Many businesses have begun integrating sustainability into their corporate strategies, influenced by both market pressures and the desire to improve their brand image and reputation. Challenges in Achieving Sustainable Consumption and Production

While the concept of Sustainable and Consumption and Production is widely recognized, achieving its goals presents several challenges.

While developed nations typically exhibit high consumption rates, developing nations often struggle with access to basic goods and services. This discrepancy creates tensions when trying to balance global consumption and production patterns.

The dominant model of economic growth often leads to increased resource consumption, posing a challenge for decoupling economic activity from environmental impacts.

Many consumers remain unaware of the environmental impact of their purchasing choices, hindering widespread adoption of sustainable consumption practices.

Transitioning to a sustainable production model requires significant investments in infrastructure, technologies, and systems, which may not be available or affordable in many regions.

Government policies and corporate strategies often prioritize short-term profits over long-term sustainability, slowing the transition toward SCP.

The Role of Stakeholders in Achieving Sustainable Consumption and Production



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Achieving sustainable consumption and production requires the collective efforts of multiple stakeholders, including governments, industries, civil society, and consumers.

Governments play a central role in setting policies, regulations, and incentives to encourage sustainable practices across all sectors. They also have the responsibility to provide education and awareness programs on sustainability.

Companies must prioritize sustainability in their operations, from production to distribution. This includes adopting sustainable supply chains, eco-friendly production processes, and promoting ethical consumerism.

Consumer behaviour is crucial in promoting Sustainable Consumption and Production. Making informed decisions about consumption, such as choosing eco-friendly products, reducing waste, and supporting sustainable brands, can drive the demand for more sustainable goods and services.

Case Studies

Denmark's Circular Economy Initiatives

Denmark has been a leader in circular economy practices. By investing in recycling technologies, promoting the use of renewable resources, and implementing policies to reduce waste, Denmark has significantly decreased its environmental footprint while maintaining high levels of economic growth.

Japan's Waste Management System

Japan's waste management system is one of the most efficient in the world, with strict regulations on waste segregation, recycling, and reuse. The country has achieved significant reductions in waste sent to landfills and has created a culture of sustainable consumption through public education and government policies.

Sustainable Fashion in Sweden

Sweden's fashion industry has taken steps to address sustainability challenges by promoting eco-friendly materials, recycling, and sustainable production processes. Many Swedish fashion companies now prioritize the circular economy and consumer awareness in their business models.

E-Waste Recycling in India: In India, initiatives to recycle electronic waste (e-waste) have gained momentum, with various NGOs and businesses working to recover valuable materials from discarded electronics and prevent environmental pollution.

Conclusion

Sustainable Consumption and Production is vital for securing a balanced and equitable future. While progress has been made, the path to achieving Sustainable Consumption and Production requires a concerted effort from all sectors of society. Governments, businesses, and consumers must collectively embrace strategies that promote resource efficiency, waste reduction, and sustainable practices. By fostering a culture of sustainability and enacting supportive policies, it is possible to decouple economic growth from environmental degradation, ensuring a more resilient and just world for future generations. Sustainable consumption and production are fundamental to achieving the broader goals of the United Nations' 2030 Agenda for Sustainable Development. SDG 12, which focuses on ensuring sustainable consumption and production patterns, serves as a critical framework for promoting resource efficiency, reducing environmental impact, and fostering social equity. While challenges remain, including economic disparities, infrastructure limitations, and the need for greater awareness, there are numerous opportunities for innovation and policy intervention to advance the goal of SCP. By collaborating across sectors and adopting sustainable practices, it is possible to achieve a more sustainable and equitable future for all.

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