

Towards Affordable and Sustainable Clean Energy in the 21st Century

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Abstract: Sustainability is development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report, 1987). While the term has often been used with reference to environmental development, today, sustainability touches other spheres of human development including but not limited to social-political and economic spheres. As the world grows to acknowledge that human activities have had a negative impact on sustainability, the United Nations has come up with a set of goals namely, Sustainable Development Goals (SDGs), aimed at mitigating and improving the current state of affairs. This article provides an overview of SDG Goal 7 which delves into the concept of affordable and sustainable clean energy.

An Overview of SDG 7

The Sustainable Development Goals (SDGs) are a set of 17 global goals adopted by the United Nations in 2015 as part of the 2030 Agenda for Sustainable Development. The SDGs are a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity by 2030. The goals cover a broad range of issues including ending poverty and hunger, improving health and education, making cities more sustainable, combating climate change, and protecting oceans and forests. The SDGs are intended to be integrated and indivisible, meaning that progress toward one goal can support progress toward others (Bexell & Jönsson, 2017).

The aim of Sustainable Development Goal 7 (SDG 7) is to "Ensure access to affordable, reliable, sustainable and modern energy for all." The goal aims to increase the use of renewable energy sources, improve energy efficiency, and increase access to energy in developing countries (United Nations, 2015). The target of this goal is to ensure universal access to modern energy services, double the global rate of improvement in energy efficiency, and increase the share of renewable energy in the global energy mix.

Access to energy is a fundamental human need and a precondition for socio-economic development. However, around 1.1 billion people still lack access to electricity and 2.7 billion people still rely on traditional biomass for cooking and heating. This lack of access to energy disproportionately affects the poor, women, and people living in rural areas, and it is a major obstacle to achieving many of the other SDGs (Zhongming, Linong, Xiaona, Wangqiang, & Wei, 2018).



Renewable energy sources, such as solar, biofuels, wind, and hydropower, are a key part of the solution to this problem. They are clean, abundant, and can be generated locally, which makes them well-suited to meeting the energy needs of people living in remote areas (Canton, 2021). The use of renewable energy can also help to reduce greenhouse gas emissions and slow the pace of climate change.

Energy efficiency is another important aspect of SDG 7. Improving energy efficiency can help to reduce energy consumption and lower energy costs for both individuals and businesses. This can be achieved through a variety of measures, such as energy-efficient building design, the use of energy-efficient appliances, and the implementation of energy-efficient industrial processes (Franco, Power,& Whereat, 2020).

Achieving SDG 7 will require a coordinated effort from governments, the private sector, and civil society. Government policies, such as feed-in tariffs, renewable energy targets, and energy efficiency standards, can help to create a favorable environment for the development of renewable energy and energy efficiency. The private sector can invest in renewable energy and energy efficiency projects, and develop new technologies. Civil society can raise awareness of the importance of access to energy and energy efficiency (Van de Graaf, 2021).

Conclusion

In conclusion, SDG 7 is a crucial goal that aims to ensure access to affordable, reliable, sustainable, and modern energy for all. Achieving this goal is essential for socioeconomic development and a sustainable future. This goal can be achieved by increasing the use of renewable energy sources, improving energy efficiency, and increasing access to energy. To achieve this goal, there is a need for deliberate and well-coordinated efforts and commitment from the members of the global community including governments, the private sector, and development partners.

References

Bexell, M., & Jönsson, K. (2017, January). Responsibility and the United Nations' sustainable development goals. In *Forum for development studies* (Vol. 44, No. 1, pp. 13-29). Routledge.

Brundtland Commission(1987). Our Common Future, United Nations General Assembly.

Boden, T. A., Andres, R. J., & Marland, G. (2017). *Global, regional, and national fossilfuel co2 emissions (1751-2014)(v. 2017)*. Environmental System Science Data Infrastructure for a Virtual Ecosystem (ESS-DIVE)(United States); Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States).



Canton, H. (2021). International energy agency. In *The Europa Directory of International Organizations 2021* (pp. 684-686). Routledge.

Franco, I. B., Power, C., & Whereat, J. (2020). SDG 7 affordable and clean energy. In *Actioning the Global Goals for Local Impact* (pp. 105-116). Springer, Singapore.

Van de Graaf, T. (2021). The International Renewable Energy Agency. *Elgar Encyclopedia of Environmental Law*, 99-107.

Zhongming, Z., Linong, L., Xiaona, Y., Wangqiang, Z., & Wei, L. (2018). Progress on global energy goals slow, but strong gains in countries show promise.

Suggested Citation

Wanjohi, A.M. & Gicheru, H.C. (2023). Towards Affordable and Sustainable Clean Energy in the 21st Century. Available online at: http://www.kenpro.org/environment/towards-affordable-and-sustainable-clean-energy-inthe-21st-century.pdf