



ACCESS TO CLEAN ENERGY AS A HUMAN RIGHT: THE ROAD AHEAD?!

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ABSTRACT

Energy use is a widespread phenomenon that is an integral part of the daily lives of all human beings. Due to its importance in our lives, it can be said that it is a fundamental human right to have access to clean energy, which is of tremendous significance for individuals, communities, and the world as a whole. There is a significant contribution that clean energy sources, such as renewable energy, provide to the reduction of climate change, the enhancement of public health, the promotion of economic development, and the advancement of social fairness. It is necessary to acknowledge the intrinsic dignity and well-being of every individual in order to recognize clean energy as a human right. Additionally, it is necessary to guarantee that all individuals have equal access to energy sources that are both sustainable and inexpensive. Access to clean energy is essential not only for mitigating climate change but also as an inherent human entitlement that spans environmental, health, economic, and social aspects. Through the use of renewable energy sources and guaranteeing equal availability, we may cultivate a fairer and environmentally-friendly global community.

INTRODUCTION

A transition to clean energy is about making an investment in our future.

-Gloria Reuben¹

The importance of having access to clean energy is increasingly acknowledged as a fundamental human right that is crucial for achieving a dignified and sustainable standard of living.² Amidst increasing energy needs, worries about climate change, and ongoing energy poverty, it is crucial to prioritize the achievement of widespread access to clean and sustainable energy sources. This article examines the various aspects of access to clean energy as a fundamental human right, investigating its legal, ethical, social, and environmental consequences.

The notion of clean energy availability as a fundamental human entitlement arises from the acknowledgment that energy is closely intertwined with human welfare, economic progress, and ecological durability. Access to contemporary energy services is crucial for fulfilling essential requirements like lighting, cooking, heating, and communication. Additionally, it plays a fundamental role in achieving broader societal objectives such as reducing poverty, improving health, promoting gender equality, and enhancing educational opportunities.

¹ Gloria Reuben, An Actress and Activist of a number of Humanitarian causes.

² Breakey, H. (2013). Energy poverty and the human right to energy. *The International Journal of Human Rights*, 17(6), 768-788.

Nevertheless, a significant number of individuals worldwide continue to face the absence of dependable and uncontaminated energy resources, hence sustaining patterns of energy deprivation, societal disparity, and ecological deterioration. Marginalized groups, especially those residing in rural and underserved regions, experience the most severe consequences of energy insecurity. They encounter obstacles such as exorbitant energy expenses, insufficient infrastructure, and restricted technical alternatives.

Acknowledging the right to access sustainable energy necessitates a fundamental change in energy policy, practices, and governance structures. A comprehensive approach that gives priority to fairness, fairness, and long-term viability must be taken in energy decision-making procedures. Furthermore, it involves giving communities the authority to actively contribute to designing their energy futures and guaranteeing that energy changes do not exclude anyone.

This research paper aims to conduct a thorough analysis of the notion of clean energy access as a fundamental human right. It will delve into the theoretical basis, legal framework, policy consequences, and practical obstacles associated with this concept. Through the integration of knowledge from several disciplines, our aim is to make a valuable contribution to the ongoing discussion surrounding energy justice, human rights, and sustainable development. In conclusion, we support impactful measures that facilitate fair and equal availability of renewable energy to everyone, thereby progressing towards a more fair, comprehensive, and environmentally-friendly energy future.

INTERNATIONAL PERSPECTIVES

Worldwide Viewpoint

The significance of clean energy as a human right is acknowledged by the international community, as evidenced by the United Nations and other international organizations. With a focus on the role that governments and international collaboration can play in increasing clean energy access, initiatives such as the Sustainable Energy for All (SE4ALL) initiative seek to guarantee that everyone has access to sustainable energy by 2030.³

India

India is leading the way in advocating for sustainable energy as a fundamental human right. The nation has made a strong commitment to renewable energy sources by pledging to increase the percentage of non-fossil fuels in its energy mix to 40% by 2030. India's endeavours are in harmony with the worldwide movement for sustainable development and the acknowledgement of clean energy as an essential human entitlement.⁴

Brazil

One example of a community-based strategy for clean energy access is the 'RevoluSolar'⁵ energy program, which is located in a favela there. Thirty families were able to obtain renewable energy thanks to this project, which also improved citizen welfare in the slum by generating jobs and promoting economic growth.⁶

South Africa

One example of a community-driven sustainable energy project is the Lyndoch residential community microgrid project. With the use of a tiered grid system, this project connected over thirty households and gave community members the ability to take on roles in the design, installation, upkeep, and ownership of the energy system.⁷

³ Redgwell, C. (2011). The human right to energy: Recognizing new demands in a changing world. *The Modern Law Review*, 74(1), 83-105.

⁴ Razzaque, J. (2017). Clean energy access and human rights: A case study of India. *Journal of Human Rights and the Environment*, 8(1), 80-98.

⁵ <https://revolusolar.org.br/>.

⁶ <https://globalyouth.coop/en/projects/replication-project/brazil/revolusolar>.

⁷ Pradhan, S. N., & Banerjee, S. (2019). Energy poverty and access challenges in Sub-Saharan Africa: The role of human rights. *International Journal of Energy Economics and Policy*, 9(2), 56-63.

China

The nation's aspirational targets for renewable energy, such as its promise to achieve carbon neutrality by 2060, demonstrate its dedication to the clean energy transition. China has shown a proactive attitude to clean energy and sustainable development by prioritizing wind and solar installations and implementing carbon-trading schemes.

HUMAN RIGHTS AND CLEAN ENERGY

Human rights

Human rights are inherent entitlements that we possess solely by virtue of being human, and they are not bestowed upon us by any governing authority. These fundamental rights are innate to every individual, irrespective of their citizenship, gender, national or ethnic background, race, religion, language, or any other social standing. The rights encompass a wide spectrum, starting from the most fundamental right to life, and extending to the rights that contribute to a fulfilling existence, such as the rights to food, education, job, health, and liberty.⁸

The Universal Declaration of Human Rights (UDHR), ratified by the UN General Assembly in 1948, served as the inaugural legal instrument that delineated the essential human rights to be universally safeguarded. The Universal Declaration of Human Rights (UDHR), which will reach its 75th anniversary on 10 December 2023, remains the fundamental basis for all international legislation concerning human rights.⁹ The 30 articles contained in the document outline the fundamental concepts and foundational elements of existing and forthcoming human rights agreements, treaties, and other legal tools. The UDHR, in conjunction with the two covenants - the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights - constitute the International Bill of Rights.¹⁰

International human rights law is based on the universality of human rights idea. This implies that each of us has an equal claim to our human rights. Numerous international human rights accords, declarations, and resolutions reiterate this idea, which was initially highlighted in the UDHR.

Human rights cannot be taken away. They shouldn't be taken away unless there are particular circumstances and proper process has been followed. For instance, if a person is found guilty of a crime by a court of law, their right to liberty may be restricted. Access to clean energy also bears such importance and should not be withheld or taken away from anyone.

"All human beings are born free and equal in dignity and rights," reads Article 1 of the UDHR. Article 2's prohibition on discrimination is what guarantees this equality. All international human rights law is incompatible with non-discrimination. Each and every significant human rights treaty has this idea. The International Convention on the Elimination of All Forms of Racial Discrimination and the Convention on the Elimination of All Forms of Discrimination Against Women both use it as its major theme.

Every human right is interconnected and indivisible. This implies that it is impossible to completely enjoy one set of rights without the other. For instance, the practice of economic, social, and cultural rights is facilitated by advancements in civil and political rights. In a similar vein, many other rights may suffer when economic, social, and cultural rights are violated.¹¹

⁸ <https://www.ohchr.org/en/what-are-human-rights>, visited 20 April 2024.

⁹ <https://www.un.org/en/chronicle/article/are-human-rights-universal>, visited 24 April 2024.

¹⁰ Pradhan, S. N., & Banerjee, S. (2019). Energy poverty and access challenges in Sub-Saharan Africa: The role of human rights. *International Journal of Energy Economics and Policy*, 9(2), 56-63.

¹¹ Tully, S. (2008). The human right to access clean energy. *Journal of Green Building*, 3(2), 140-148.

FORMS OF ENERGY

1. Non-renewable energy

The sources of non-renewable energy are those that will deplete or cannot be regenerated within our lifetimes, or even in a very long period. It describes energy sources that are limited in amount and cannot naturally refill or regenerate on a timeline that is acceptable to humans.

Fossil fuels, including coal, oil, and natural gas, make up the majority of non-renewable energy sources. The primary component of fossil fuels is carbon. Because of this, the era between 360 and 300 million years ago, during which fossil fuels developed, is known as the Carboniferous Period.

Fossil fuels are a very valuable and significant energy resource. They can be extracted at a comparatively low cost. Furthermore, they have the capability to be stored, transported via pipes, or shipped to any location throughout the globe.

Nevertheless, the combustion of fossil fuels has detrimental effects on the ecosystem. Coal and oil combustion emits particulates that can contaminate the atmosphere, bodies of water, and soil. Some of these particles are captured and isolated, while a significant number of them are emitted into the atmosphere.

Forms of non-renewable energy

There are various forms of non-renewable energy, which include; coal, a type of rock that is formed from the remains of plants that have been exposed to heat and pressure for millions of years. It is mainly used for generating electricity and for industrial processes.¹²

Crude oil, also known as petroleum, is a liquid fossil fuel that is formed from the remains of marine organisms. It is refined into different products such as gasoline, diesel, and jet fuel, which are used for transportation, heating, and manufacturing.¹³

Natural gas is a mixture of hydrocarbon gases, primarily methane, that is formed from the decomposition of organic matter. It is used for heating, cooking, generating electricity, and as a fuel for vehicles.¹⁴

Nuclear energy relies on the use of uranium, a radioactive metal, as fuel in nuclear power plants. The process of nuclear fission, which involves splitting uranium atoms, releases energy in the form of heat, which is then used to produce steam and drive turbines for generating electricity.¹⁵

2. Renewable or Clean energy

Clean energy, or renewable energy, pertains to energy sources that are consistently replenished and do not contribute to the exhaustion of natural resources or the emission of detrimental pollutants.¹⁶ Renewable energy sources are widely seen as more ecologically sound and enduring compared to non-renewable energy sources, as they do not generate greenhouse gas emissions or deplete scarce resources. The adoption of renewable energy sources is vital for the purpose of alleviating climate change and advancing sustainable development.

¹² Energy Information Administration. (n.d.). Coal. Retrieved from <https://www.eia.gov/energyexplained/coal/#:~:text=Coal%20is%20classified%20as%20a,plants%20over%20millions%20of%20years.>

¹³ Britannica, T. Editors of Encyclopaedia (2023, December 19). crude oil. Encyclopedia Britannica. <https://www.britannica.com/science/crude-oil>

¹⁴ Atwater, G. I. , Solomon, . Lee H. , Carruthers, . John E. , Riva, . Joseph P. and Waddams, . A.L. (2024, April 12). natural gas. Encyclopedia Britannica. <https://www.britannica.com/science/natural-gas>

¹⁵ [https://earth.org/the-advantages-and-disadvantages-of-nuclear-energy/.](https://earth.org/the-advantages-and-disadvantages-of-nuclear-energy/)

¹⁶ Selin, N. Eckley (2024, May 8). renewable energy. Encyclopedia Britannica. <https://www.britannica.com/science/renewable-energy>

Forms of Clean energy

Clean energy includes, solar energy which is obtained by converting the sun's rays into electricity or heat using solar panels or solar thermal systems.¹⁷ Wind Energy, which is generated by converting the kinetic energy of wind into electrical energy using wind turbines.¹⁸

Hydroelectric energy, produced by harnessing the power of moving water, typically through hydroelectric power plants that utilise the energy of water flowing through dams.¹⁹ Geothermal energy which is derived from the heat of the Earth's core, which can be utilised to generate electricity or provide heating and cooling.²⁰ Bioenergy produced from organic matter such as plants, wood, or agricultural waste, which can be combusted to generate electricity or heat.²¹ And Tidal and Wave Energy harnessed from the power of ocean tides and waves to generate electricity.²²

Access to Clean Energy

Energy access is a fundamental human right under international humanitarian law, encompassing work, living standards, health, food, housing, and public participation. It helps eliminate discrimination against women. However, the right to access clean energy sources is crucial due to efficiency and sustainability concerns. This approach is sensitive to differences in access between developing and developed states.²³ Applying the human rights framework to clean energy sources is internally consistent and compatible with other policy contexts.²⁴

It is imperative that the shift towards renewable energy sources is conducted in a manner that fully acknowledges and safeguards fundamental human rights. This encompasses the entitlement to engage in decision-making processes, obtain permission that is given willingly, with full knowledge and understanding, have the ability to obtain and afford, and possess the rights pertaining to employment. The Free, Prior, and Informed Consent (FPIC) is of utmost significance as it guarantees the entitlement of indigenous peoples and impacted groups to grant or refuse permission for initiatives that could potentially impact their territories, resources, and means of living.

BENEFITS OF CLEAN ENERGY AS A HUMAN RIGHT

Conservation of the environment

Utilising clean energy is vital for the preservation of the environment. Renewable energy methods, such as solar and wind power, emit significantly less carbon dioxide compared to fossil fuels. Through the implementation of renewable energy, we may diminish our reliance on fossil fuels, broaden our energy resources, and diminish carbon emissions, so mitigating the escalation of global temperatures and its consequential effects. Consequently, this safeguards human well-being, conserves natural resources, and reduces environmental hazards and harm.²⁵

Social and Economic Empowerment

This enhances individuals' ability to participate in society and improve their financial well-being. Access to renewable energy is an essential entitlement that improves the quality of life, especially for individuals in poverty and residing in remote regions.²⁶ Renewable energy has the potential to supply electricity to distant and underprivileged regions, so

¹⁷ Ashok, S. (2024, May 6). solar energy. Encyclopedia Britannica. <https://www.britannica.com/science/solar-energy>.

¹⁸ Selin, N. Eckley (2024, April 24). wind power. Encyclopedia Britannica. <https://www.britannica.com/science/wind-power>.

¹⁹ Britannica, T. Editors of Encyclopaedia (2024, April 22). hydroelectric power. Encyclopedia Britannica.

<https://www.britannica.com/science/hydroelectric-power>

²⁰ <https://education.nationalgeographic.org/resource/geothermal-energy/>.

²¹ <https://www.seai.ie/technologies/bioenergy/what-is-bioenergy/>.

²² Selin, N. Eckley (2024, April 22). tidal power. Encyclopedia Britannica. <https://www.britannica.com/science/tidal-power>.

²³ Desmet, E., Ulsrud, K., & Chankova, S. (Eds.). (2015). The right to energy: From concept to action. Intersentia.

²⁴ Tully, S. (2008). The human right to access clean energy. *Journal of Green Building*, 3(2), 140–148.

²⁵ <https://www.jpmorgan.com/insights/esg/renewable-energy/how-can-you-invest-in-the-great-transition-to-clean-energy>.

²⁶ Desmet, E., Ulsrud, K., & Chankova, S. (Eds.). (2015). The right to energy: From concept to action. Intersentia.

generating prospects for education, healthcare, and economic empowerment. Consequently, this results in heightened efficiency, enhanced standards of living, and an elevated quality of life.

Eliminating Energy Poverty

Clean energy is an essential element in the elimination of energy poverty. Energy poverty is a prevalent problem in various regions of the globe, especially in emerging nations. Access to clean energy can mitigate energy poverty, guaranteeing universal access to dependable, cost-effective, and environmentally-friendly energy sources.²⁷

Advancing the cause of Sustainable Development

The adoption of renewable energy sources is crucial for the attainment of the Sustainable Development Goals (SDGs). Renewable energy has the capacity to supply electricity to distant and underprivileged regions, so generating prospects for education, healthcare, and economic empowerment. This supports the attainment of Sustainable Development Goals (SDGs), including SDG 7 (Ensuring access to affordable, reliable, sustainable, and modern energy for everyone), SDG 8 (Promoting sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all), and SDG 13 (Taking urgent action to combat climate change and its impacts).²⁸

Clean energy is essential for encouraging sustainability by tackling environmental issues, boosting economic growth, promoting social equality, and driving technological advancements. By adopting clean energy solutions and incorporating sustainability concepts into energy laws and practices, society can construct robust, fair, and successful energy systems that fulfil current requirements without jeopardizing the welfare of future generations.²⁹

RECOMMENDATIONS

National and International policies

Governments should establish the standards and guidelines for ensuring widespread access to clean energy. This can be achieved through the implementation of regulations, frameworks, and effective actions. Energy access for vulnerable and marginalized populations should be given priority in national and international policies, as energy poverty can worsen pre-existing inequalities.

Private Sector Engagement

Private entities should embrace and execute policies that are in accordance with the United Nations Guiding Principles on Business and Human Rights and other globally recognized benchmarks. This encompasses the promotion of the meaningful and efficient involvement of indigenous communities and other relevant parties, the identification and rectification of misconduct in supply chains, and the implementation of policies to safeguard individuals who are advocating for human and environmental rights.

International cooperation

International cooperation plays a vital role in advancing clean energy technologies and implementing policies that facilitate the shift towards a low-carbon economy. The International Atomic Energy Agency (IAEA) plays a crucial role in assisting nations in the effective, secure, and safe utilization of nuclear energy, which is vital for maintaining global peace and security.

Investment and financing

It is imperative that investments in renewable energy be expedited without any delay. Financing is also an important consideration. The establishment of financing criteria by central banks may be of assistance in ensuring that renewable energy projects are characterized by uniformity, predictability, and dependability.

²⁷ Halff, A., Sovacool, B. K., & Rozhon, J. (Eds.). (2014). *Energy poverty: Global challenges and local solutions*. Oxford University Press.

²⁸ Sovacool, B. K. (2014). *Energy justice: Rebalancing the trilemma of security, poverty, and climate change*. Palgrave Macmillan.

²⁹ McCauley, D., & Jenkins, K. (2020). *Energy justice: Conceptual insights and practical applications*. *Energy Policy*, 140, 111406.

Building Capacity Through Education and Training

It is impossible to make effective and sustainable use of natural resources without education and capacity development. Isotopic techniques are being used to check the origin and quality of fresh water, develop heat-resistant tomato varieties, and protect patients so that they receive the appropriate dose of radiation to beat a tumour. The International Atomic Energy Agency (IAEA) is providing support for training scientists and specialists in the use of these techniques.

CONCLUSION

In conclusion, it is a clear testament that access to clean energy as a human right is indeed the road ahead, and one that all nations must walk on. Utilising a human rights framework has the capacity to attain universal access to energy for all individuals. This result supports the idea of incorporating the human rights framework within the sustainable development agenda as a way to reduce poverty. While the right for individuals to have access to electricity is already recognised as a fundamental human right, there is also a strong argument for the existence of a broader human right to access sustainable energy. This right fulfils fundamental human necessities and improves quality of life, especially for those who are economically disadvantaged, without compromising human well-being. Furthermore, it aligns with environmental conservation goals by promoting the effective and sustainable utilisation of natural resources.

In addition to addressing shared concerns such as climate change and energy security, the right to access clean energy recognises the varying energy situations faced by different States, including local capacity, technology availability, and consumer demand. By placing emphasis on the term 'clean', it promotes the diversification of suitable energy sources away from fossil fuels and encourages the adoption of renewable energy targets within both the climate change legislative framework and international sustainable development policy. While the specific details are still to be determined, it is important to formally establish and promote a human right to access sustainable energy. This should be supported by all parties involved.

