The Hague International Model United Nations

Forum: General Assembly 2

Issue: Ensuring access to affordable, reliable, sustainable, and modern energy for all

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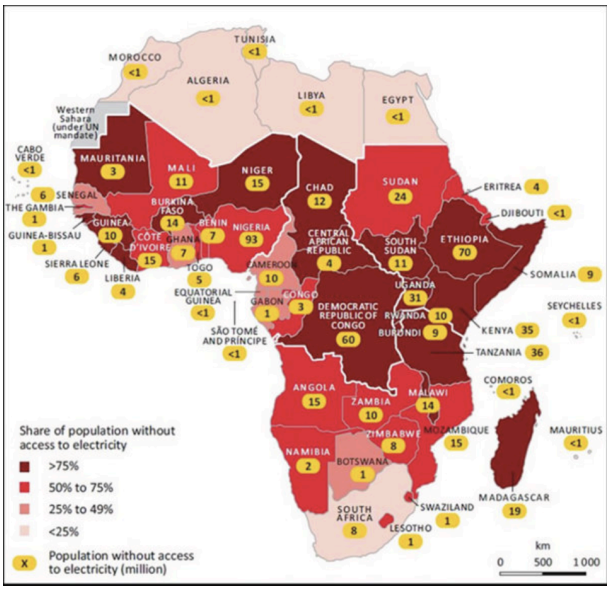
Introduction

Guaranteeing dependable, sustainable and contemporary energy availability for everyone is among the major worldwide challenges of the 21st century. Having energy access is essential for growth, healthcare, education, food safety and societal stability. Without power hospitals cannot store medicines properly or run life-saving devices; schools are unable to offer digital education; and communities stay cut off from economic prospects. However despite advancements in the ten years, around 675 million individuals remain without electricity ("Basic energy")[1]. Most of these individuals reside in the areas of Sub-Saharan Africa and certain areas of developing Asia. Meanwhile 2.3 billion individuals (one-third of the global population) still depend on hazardous and contaminating fuels, like charcoal, wood and kerosene for cooking, putting them at significant health dangers and worsening environmental damage ("Executive summary")[2]. This can be seen on the diagram to the right. (*Research Gate*)[3] This issue is further complicated by the accelerating effects of climate change. The energy sector accounts for roughly three-quarters of global greenhouse gas



[1] Basic energy access lags amid renewable opportunities, new report shows." *International Energy Agency*, 6 June 2023, www.iea.org/news/basic-energy-access-lags-amid-renewable-opportunities-new-report-shows. Accessed 3 Dec. 2025

[2] "Executive summary." *International Energy Agency*, www.iea.org/reports/a-vision-for-clean-cooking-access-for-all/executive-summary. Accessed 3 Dec. 2025.

[3] Research Gate. June 2022, www.researchgate.net/figure/Map-of-Africa-showing-the-rates-of-access-to-electricity-and-total-populations-without_fig1_352699440 .Accessed 17 Dec. 2025.

emissions ("Historical GHG Emissions")[4]. This means that the world must not only expand energy access but do so in ways that are sustainable and consistent with long-term climate goals. Balancing development and decarbonisation poses unique challenges for LEDC's that also face significant financial constraints, fragile infrastructure, and vulnerability to climate-related disasters such as droughts, floods, and heatwaves. The endorsement of Sustainable Development Goal 7 (SDG7) in 2015 represented the worldwide acknowledgment that contemporary energy services are crucial, to accomplishing the full 2030 Agenda. Nevertheless current patterns show that the planet is on course to attain universal access by 2030. Advancement has significantly decelerated since 2019 because of the COVID-19 pandemic. This resulted from increasing inflation and geopolitical conflicts, which in turn impacted fuel costs and renewable energy supply networks. Conflict-affected countries have experienced reversals in electrification as infrastructure is destroyed or becomes inaccessible.

Definition of Key Terms

Energy Poverty

This is a condition in which both individuals and communities lack access to affordable, reliable and clean energy services required for basic human needs, such as lighting, heating, refrigeration and communication. An example of this is when a household spends a disproportionate amount on cooking fuels, heat, electricity etc or cannot afford it, then they are considered energy poor.

Renewable energy

Energy derived from natural sources that are replenished on a human timescale. Examples include solar, wind, geothermal and hydropower. These sources reduce reliance on fossil fuels and play a central role in climate mitigation.

Decentralised (off-grid) energy systems

Small-scale energy generation units such as solar home systems, community mini-grids, or micro-hydro plants—that operate independently of national electricity grids. These systems are often the most cost-effective solution for rural and remote areas.

Energy transition

The global shift from fossil fuel-based systems toward renewable and energy-efficient systems. This transition requires changes in infrastructure, technology, regulatory policy, and can be achieved through international cooperation.

Background Information

[4] "Historical GHG Emissions." *Climate Watch*, www.climatewatchdata.org/ghg-emissions. Accessed 3 Dec. 2025.

Energy access disparities

Rural–urban divide and economic constraints

Rural areas experience significantly lower electrification rates because of high infrastructure expenses, difficult landscapes, and reduced commercial appeal for private energy firms. In numerous low-income nations, the expense of expanding national power grids to distant villages surpasses the anticipated economic benefit. Consequently, rural homes frequently depend on expensive diesel generators or gather firewood for essential requirements (Omole et al.)[5]. Such inequalities sustain cycles of poverty, obstruct access to digital education, and restrict opportunities for regional economic growth. Sub-Saharan Africa continues to be the area with the largest energy-access gap, representing about 80% of the worldwide population lacking electricity ("Access to electricity")[6]. In certain regions of Central and West Africa, the rates of electrification have either stagnated or decreased because of conflict, increasing population, and inadequate grid infrastructure. Conversely, South and Southeast Asia have made swift progress via extensive national electrification initiatives. Nevertheless, even in areas with high average access rates, reliability challenges, like frequent power outages, persist in hindering advancement.

Insufficient investment in energy infrastructure

Achieving worldwide energy-access goals necessitates considerably more financial resources than what is presently accessible. The International Energy Agency projects that yearly investment in electricity access needs to increase more than threefold to meet the goals of SDG7 ("Executive summary")[7]. Most LEDCs have limited fiscal space and substantial public debt, as well as competing development priorities, making the financing of large-scale grid expansion complex. Private investment is generally concentrated in those countries that are perceived to be politically stable and economically sound; hence, the poorest countries have very restricted access to capital.

High dependence on fossil fuels

Most developing countries depend heavily on imported fossil fuels owing to a lack of indigenous energy resources or underdeveloped renewable infrastructure. This dependence exposes an economy to volatile international fuel prices, as was seen during the post-pandemic inflation spike and geopolitical tensions in 2022–2023. Increases in fuel costs stress national budgets, raise electricity tariffs, and increase inequalities in access for low-income countries. Similarly, subsidies on fuels like kerosene also inhibit switches to cleaner options.

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[5] Omole, Femi, et al. "CHALLENGES AND SUCCESSES IN RURAL ELECTRIFICATION: A REVIEW OF GLOBAL POLICIES AND CASE STUDIES." Research Gate, Mar. 2024. Accessed 3 Dec. 2025.

[6] "Access to electricity." *International Energy Agency*, www.iea.org/reports/sdg7-data-and-projections/access-to-electricity. Accessed 3 Dec. 2025.

[7] "Executive summary." *International Energy Agency*, www.iea.org/reports/a-vision-for-clean-cooking-access-for-all/executive-summary. Accessed 3 Dec. 2025.

Advances in decentralised energy systems

Improvements in the cost and efficiency of renewable technologies-especially solar and battery storage-continue to open up new opportunities to expand access. Off-grid systems and mini-grids often can meet demands at lower cost than traditional grid extension in many rural contexts. Pay-as-you-go financing models, for example, allow low-income households to purchase solar systems through small mobile payments; this significantly reduces financial barriers.

Geopolitical and supply-chain dynamics

Impact of Global Fuel Price Instability

Global energy markets continue to be very sensitive to geopolitical events. In the case of the war in Ukraine, both oil and gas prices increased sharply, thus decreasing the affordability of electricity for households and businesses in many developing countries. Higher prices can also constrain the expansion of energy access programmes because governments face higher import costs and budgetary pressures.

Major Countries and Organizations Involved

UN and International involvement

The United Nations plays a central role in coordinating international action related to energy access. Through the SDG 7, the UN established global targets on electrification, clean cooking, and increased renewable energy capacity. UNDP and UNEP support governments through technical assistance, the design of policy frameworks, and facilitation of capacity-building processes. The UN also engages regional bodies like the African Union and ASEAN for better cross-border energy cooperation. UNFCCC further encourages countries to align their national energy strategies with climate commitments, integrating energy access and mitigation objectives.

- Sustainable Development Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all, adopted 25 September 2015 (A/RES/70/1)
- Paris Agreement, 12 December 2015 (UNFCCC/CP/2015/10/Add.1)
- General Assembly Resolution on Strengthening the Role of the UN in Global Energy Governance, 17 December 2020 (A/RES/75/209)
- UN Energy Plan of Action, May 2022 (UN-Energy/2022)

China

China holds a position in influencing worldwide energy availability and advancing the shift to sustainable energy frameworks. Being the manufacturer of solar panels, wind turbines and

battery-storage technologies China has dramatically lowered the global prices of renewable energy increasing the accessibility of clean technologies for developing nations. Within its borders China has grown its energy capacity, on an unprecedented scale. This serves as an illustration of swift energy transformation. Globally China offers funding for energy infrastructure including electricity networks, hydropower plants and growing investments in solar and wind projects mainly via the Belt and Road Initiative. These contributions have helped enhance energy availability in regions of Africa, Asia and the Middle East. In 2021 China committed to stopping the development of coal-fired power stations abroad signaling a move toward greener global energy investments. Despite its significant contributions, some Chinese-funded projects face criticism regarding long-term debt sustainability, environmental impact assessments, and transparency of financing arrangements. Nevertheless, China remains one of the most influential actors in global energy development and will continue shaping the pace and direction of energy access initiatives.

Timeline of Events

Date	Description of event
September 2015	Adoption of the 2030 Agenda for Sustainable Development, establishing SDG7 on universal modern energy access.
December 2015	Paris Agreement adopted, linking global energy systems to long-term climate and sustainability commitments.
2020	COVID-19 pandemic disrupts renewable-energy supply chains and slows global progress on electrification.
September 2021	China announces it will stop financing new overseas coal-fired power plants.
May 2022	UN releases the Global Energy Plan of Action to accelerate efforts toward SDG7.

Previous Attempts to solve the Issue

Earlier efforts to improve energy access have mainly concentrated on projects and national electrification schemes. The United Nations has aided nations via SDG7 the UN-Energy Plan of Action and technical support from bodies like UNDP and UNEP targeting the growth of energy and clean cooking solutions. The World Bank and regional development banks have provided funding for grid expansions, mini-grids and clean cooking initiatives. Financial shortfalls and sluggish execution have restricted sustained outcomes. Several national programmes—such as India's Saubhagya scheme and Kenya's off-grid solar expansion—have demonstrated rapid progress but remain difficult to replicate in fragile or low-income states. Overall, previous efforts improved access in some regions but have not achieved global scalability or sufficient investment levels.

Possible Solutions

An option could be to boost funding for energy initiatives in low-income nations by utilizing blended finance approaches that merge public funding backing from development banks and private investment. Instruments that reduce risk like loan guarantees or concessional financing might increase the appeal of energy projects to investors while maintaining affordability for local populations. Another approach involves scaling up decentralized energy solutions, such as mini-grids and solar home systems in rural and isolated regions where extending the main grid is not financially viable. Authorities might simplify licensing processes, encourage private collaborations and provide specific subsidies to lower initial expenses for families. Another approach is to speed up the shift to clean cooking by advocating for LPG, electric cooking, biogas or enhanced biomass stoves. This effort should be backed by subsidies, for disadvantaged households, educational campaigns and dependable supply chains. Enhancing availability of cooking options decreases health hazards and aids environmental conservation. Finally, countries can enhance regional cooperation by strengthening cross-border power pools, allowing states to share electricity resources and stabilise supply. Improved regulatory frameworks, transparency, and utility reforms will also be essential to attract investment and ensure the long-term sustainability of national energy systems.

Endnotes

1. Basic energy access lags amid renewable opportunities, new report shows." International Energy Agency, 6 June 2023, www.iea.org/news/basic-energy-access-lags-amid-renewable-opportunities-new-report-shows . Accessed 3 Dec. 2025
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