POL561A

Energy Access as a Human Right

IS ENERGY ACCESS IN SERVICE OF GENDER EQUITY A DERIVED HUMAN RIGHT?

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Introduction

Women's rights have broadly been accepted as human rights, with references to gender equity included in the preamble of the Universal Declaration of Human Rights in 1948. Despite advances in the subsequent eight decades, the 2019 UN Commission on the Status on Women "expresses concern that the feminization of poverty persists and emphasizes that the eradication of poverty in all its forms and dimensions, including extreme poverty, is indispensable for women's economic empowerment and sustainable development" (UN Women, 6). Compelling arguments suggest that access to electricity may be a critical element of plans to address lingering inequalities, and this paper will explore why energy access should be considered a derived human right, rather than simply a luxurious improvement on beneficiaries' quality of life.

The International Energy Agency (IEA) defines energy access as "a household having reliable and affordable access to both clean cooking facilities and to electricity, which is enough to supply a basic bundle of energy services initially, and then an increasing level of electricity over

time to reach the regional average" (IEA 2017, 21). "Clean cooking facilities" implies access to modern fuels like natural gas, electricity, or biogas, rather than heavily polluting basic biomass cookstoves, and a "basic bundle of energy services" describes, at minimum, several lightbulbs, a radio, light for tasks, and phone charging (IEA 2020). As of 2012, an estimated 2.7 billion people depended on biomass for cooking and other household activities, which exposes predominantly women and children to dangerous indoor air pollution (González-Eguino, 380). Access to electricity qualifies as connection to an electricity grid, a renewable stand-alone system, or a microgrid capable of satisfying the above use cases, and estimates suggest that 1.2 billion people have no access to electricity, severely compromising their productivity and limiting opportunities for economic advancement (IEA 2020). The 2.7 billion people who rely on biomass are the focus of this discussion, given that they offer the greatest unmet need.

In addition to promoting higher qualities of life, access to energy would directly improve metrics that impede women's ability to enjoy safe, happy lives. Cooking with traditional fuels leaves women and children vulnerable to serious respiratory illness, and electrification would dramatically improve health outcomes for women by providing alternatives to inefficient cookstoves that pollute households. Collecting fuel is predominantly women's responsibility, and expeditions expose women to grave potential for injury and sexual assault. Electrification could relieve that burden by allowing them to forego the burdens of fuel collection, helping women to avoid dangerous scenarios. Lastly, electrification offers unparalleled productivity multipliers that would allow more women to engage in entrepreneurial and educational opportunities.

While energy access may be important in achieving other development goals that have been established as human rights endeavors, existing legislation is unclear on whether access to

electricity itself qualifies as a human right itself. There is limited legislative support for access to electricity as a basic human right, which can be defined as requirements for "basic biological needs like unpolluted air, unpolluted water, adequate food, adequate clothing, adequate shelter, and a minimum of preventive health care" (Lofquist 714). Certainly, people without electricity are not dying from a lack of energy, but electricity is indispensable for protecting and advancing established human rights. Access to energy may qualify as a derived human right, a right "derived from other universal human rights," in particular those relating to women's goals (Vithinage, 2). Multiple human rights elevating gender equity will be unachievable without improving women's access to energy. Furthermore, a strong relationship exists between accepted development goals and theoretical human rights that begs exploration, though arguments favoring a market-driven approach to universal energy access, rather than a designation of energy access as a human right, will also be addressed. Given the scope of this paper, discussions of the human rights implications of climate change, pollution, and energy generation will be omitted.

Role of Electricity Access in Gender Inequality

Per capita energy consumption is strongly correlated with gross domestic product (GDP) per capita, the human development index (HDI), and life expectancy at birth. For example, In 2015, Germany and the United States consumed more than 4 tons of oil equivalent (toe) per person per annum and had some of the highest HDI scores (0.92) and life expectancies of 80 and 78, respectively, while India, Nigeria, and Ethiopia consumed closer to 0.7 toe and had HDI scores of 0.55, 0.47, and 0.39 respectively and life expectancies below 65 years (González-Eguino, 378). The relationship between energy consumption and standards of living can be nuanced, with energy exporters like Saudi Arabia or Russia reporting higher per capita consumption but lower

relative quality of life, but overall, citizens' access to energy and electricity generally correlates with improved lifestyles, greater prosperity, and better health outcomes. Energy access is especially critical in addressing gender inequality, particularly regarding female health outcomes, exposure to physical injury, and economic opportunity costs resulting from a lack of energy access.

Health Outcomes

The most pressing burden of a lack of energy access is households' reliance on fuel-burning cookstoves and resulting indoor air pollution (IAP). Approximately 2.7 billion people burn firewood, dung, charcoal, and other biofuels as their primary source of energy, which is "as physiologically damaging as residing inside a giant, constantly smoking cigarette" (Sovacool, 228). In 2012, the WHO attributed 1.3 million deaths per year to IAP caused by cooking with biogas, just behind infant malnutrition and a lack of drinking water and drainage btu well ahead of malaria and tuberculosis (González-Eguino, 382). Given the gendered distribution of labor in most countries with limited energy delivery infrastructure, women and children are by far the most impacted victims of IAP. Further, IAP frequently causes chronic illness and is considered the fifth highest risk factor in disability-adjusted life years (DALYs), contributing a loss of 33 million DALYs, compared to 20 millions DALYs lost to vitamin A deficiency and 14 million DALYs lost to zinc deficiency (González-Eguino, 382). Failing to address energy inequality will directly undermine goals promoting equitable health outcomes for men and women.

Exposure to Physical Injury

Women and children endure further health risks during time-intensive fuel collection, through both physical burden and exposure to violence. Injuries like back and foot damage,

exposure to extreme weather, and sexual assaults are common (Sovacool, 229). In Somalia, a UN inquiry found "hundreds of documented cases of [women] being raped while collecting fuel, and women in Sarajevo faced sniper fire to collect biomass" (Sovacool, 229). In 2005, investigations of a refugee camp in Darfur reported 200 cases of assault per month when women left the camp to gather firewood, though strong stigmas associated with rape may mean "it is extremely likely that the real number of survivors of sexual violence is much higher" (Patrick, 40). Figures like these are common around the world and impact women in conflict-ridden regions the most. Beyond the challenges of recovering physically from assault, it is challenging to overstate the emotional trauma associated with rape or with the fear of assault during mundane activities. Giving women access to more convenient energy can directly protect vulnerable populations from predation.

Economic Opportunity Costs

The opportunity costs of the time and energy associated with energy poverty are well documented, with fuel collection requiring extensive drudgework and compromising women's ability to work on other productive tasks. Fuel collection is firmly within women's purview in most cultures, and studies have found that "the typical [rural Indian] woman spends forty hours collecting fuel per month during fifteen separate trips, many walking more than 6 kilometers round trip" (Sovacool 229). Further, climate change and localized deforestation are increasing the amount of time many women need to spend gathering adequate quantities of fuel for their households' operation (Barnes, 9). Access to electricity not only immediately relieves women of the burden of collecting fuel but also often reduces time spent cooking, given that biomass tends to have very low thermal efficiencies and requires much longer to cook than electric stoves.

Surveys suggest that cooking with biomass cookstoves typically requires three hours of daily activity and that more efficiency cooking technologies can reduce that figure to approximately two hours daily (Barnes, 37). Between time saved in collecting fuel and more efficient food processing, access to electricity can save between 1 – 4 hours daily of unpaid labor and allow women to pursue other activities, whether they be productive money-making endeavors or simple leisure (Oparaocha, 268).

In addition to relieving women of onerous burdens, access to energy also offers productivity multipliers and unique development opportunities. When women in poor communities are involved in income-generating enterprises, they often work in the informal sector cooking or processing food. Because of the same factors that govern household energy consumption, operations in fuel-intensive fields can result in energy costs that are 20-25% of the total inputs (Oparaocha, 265). Access to energy could alleviate a portion of these costs and reduce the required capital for money-making activities. Energy access also allows for development opportunities, particularly regarding education and personal development. Research in India found that "populations with higher levels of access to electricity and better street lighting have higher literacy rates [and] lower drop-out rates, and [they] devote more time to reading and studying" (Khandker). Depriving populations of these opportunities directly impedes their ability to pursue better lives for themselves and their families, further entrenching gender discrimination and the feminization of poverty.

Energy Access as a Human Right

Energy access is clearly important in addressing systemic issues that entrench discriminatory gender roles and poverty more broadly, but it is not clearly established as a human

right itself. Established, legally binding conventions on Human Rights elevate poverty reduction and gender equity as human rights, and energy access's role in facilitating these rights qualify it as a derived human right. Further, the inclusion of energy access in UN development goals demonstrate its universal importance and show that excluding people from access to energy where reasonable should be considered a human rights impingement, given the swath of benefits offered by access to energy. Arguments suggesting that energy access should not be a human right, for fear of actually impeding the roll out of universal energy access, miss the point that energy access is so critical to development efforts that denying potential beneficiaries unacceptably confines them to poverty.

Conventions on Human Rights

The Universal Declaration of Human Rights (UDHR) is the canonical document on human rights and makes no mention of electricity as a human right, but it must be considered that the UDHR was passed in 1948, when electricity was considered an aspirational luxury even in wealthy countries. Rights to clean water and sanitation are also not mentioned in the UDHR, but the adoption of resolution 64/292 in 2010 on "The Human Right to Water and Sanitation" demonstrates that expectations of basic minimums of subsistence can change to reflect technological advances. The resolution "recognizes the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights," a designation that would have been considered unrealistic or too ambitious fifty years ago (UN Assembly 2010).

Regarding shifting expectations, the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), adopted by the UN General Assembly on December 18,

1979, affirms signatories' "faith in fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women" (Assembly 1979). While its articles predominantly address active forms of discrimination like political disenfranchisement or prohibitions on taking loans, the convention also addresses less overt discrimination such as unequal health outcomes or rigid gender roles. CEDAW does not provide specific support for electricity as a basic human right, but Article 14 mentions women's right "to enjoy adequate living conditions, particularly in relation to housing, sanitation, electricity and water supply, transport and communications" (UN Assembly 1979). The inclusion of electricity as a minimum for adequate living conditions reflects the monumental advances in quality of life that electricity access can provide, and as previously discussed, access to energy is indispensable in protecting women from undue burden on their time, their safety, and their economic potential. Although the inclusion of a human right to energy has been contested by "those solely focused on human needs [as] the array of human rights that proffer human benefit," access to electricity in protecting women's well-being qualifies it as a derived human right (Vithinage).

Development Goals and Human Rights

Energy access is critical to two major UN development plans, the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs). Goal 3 of the MDGs aims to "promote gender equality and empower women" (UNDP), and goal 7 of the SDGs specifically concerns affordable and clean energy, aiming to "ensure access to affordable, reliable, sustainable, and modern energy for all" (United Nations, 2019). Frameworks for human rights and UN development goals are complementary, "[sharing] guiding principles such as participation, empowerment, [and] national ownership; [serving] as tools for reporting processes

that can hold governments accountable; and, most fundamentally, [sharing] the ultimate objective of promoting human well-being and honoring the inherent dignity of all people" (UNDP, 10). Although human rights and development goals can be mutually reinforcing, they do share key differences.

Human rights are broader in scope, answering broadly philosophical questions about the human condition, and they are legally binding and formal but feature no deadlines for realization. Signatories of human rights conventions accept obligations "to protect human rights [by] ensuring that third parties do not interfere with their enjoyment" and "to take steps progressively to realize the right in question" (UNDP, 9). Development goals tend to focus on "key areas for achieving human development" and are more conducive to quantitative measurement, featuring "well established indicators used to monitor progress" (UNDP, 12). These distinctions mean that development goals are valuable tools for galvanizing collective action to solve global issues and that human rights can offer "legitimate criteria with which to judge the quality and outcomes of the [development initiatives]" as well as legal grounds to prosecute active discrimination (UNDP, 20). Within the distinction between human rights and development goals, energy access should qualify as a right to compel states toward its realization as well as to prevent future discrimination. The potential opportunities afforded by energy access are too great to leave to chance, especially those that impact vulnerable women. Energy access will not only facilitate critical advancements for underserved populations; a lack thereof will also directly impede stated goals.

Arguments Against Energy as a Right

Although there are many compelling points qualifying energy access as a derived human right, reasonable arguments to the contrary must be acknowledged. As Burgess presents, one school of thought suggests that "electricity as a right [may actually] undermine the aim of universal access to reliable electricity" because energy utilities are obligated to deliver energy access while navigating market forces (Burgess, 146). The argument suggests that "because electricity is seen as a right, subsidies, theft, and nonpayment are widely tolerated," effectively leading to a tragedy of the commons (Burgess, 146). It becomes "difficult to charge customers for electricity and nearly impossible to disconnect consumers who do not pay" (Burgess, 148). Burgess suggests that allowing markets to lead electrification efforts will achieve the most optimal implementation, following standard neoliberal development ideology. Löfquist refutes the argument best: "This market access conceptualization of rights inadequate. … A market based approach fails to grasp that it is not a right to access a market that matters, it is the enjoyment of what the market can provide that is the object of the right" (Löfquist, 715). Burgess' thinking is rooted in the capitalist idea that states should only aim to provide "freedom from need" for their citizens, rather than aspirationally pursuing "freedom from want" as a welfare state might attempt.

Additionally, it is true that power grids are sensitive infrastructural undertakings and that infrastructure owners must make market-driven decisions, but framing a human right within what is easily achievable misses the goal of a human right. The UN defines human rights as "the rights possessed by all persons, by virtue of their common humanity, to live a life of freedom and dignity. Human rights are universal – they are the same for everyone, everywhere" (UNDP, 8).

As discussed, energy access is becoming a minimum standard for adequate housing in an increasingly connected world, and a lack of access presents serious, insurmountable hurdles. Making a human right contingent on users' ability to pay or on the technological sophistication of their country implicitly accepts a hierarchy of opportunity in which individuals' ability to pursue freedom and dignity depends on their wealth, relegating the most vulnerable to their rungs on the social ladder.

Conclusion

Improving energy access for the 2.7 billion people who still rely on biomass as their primary fuel source must continue to be an international priority. Energy access is critical in protecting women's rights, particularly those relating to differing health outcomes resulting from indoor air pollution, to vulnerability to sexual assault while collecting fuel, and to alleviating the burden of unpaid work and opportunity costs associated with inefficient or unavailable fuel options. Existing conventions on human rights suggest that energy access qualifies as a derived human right in pursuit of basic human rights, and the criticality of energy access in pursuing development goals show that depriving people of energy access could be a large impingement on their rights to freedom and prosperity, given the importance of energy access in the modern economy. Lastly, conceiving of energy access as a service delivered by market forces misses the objective of a human right: facilitating lives of freedom and dignity for everyone, everywhere.

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