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Collective capabilities: overcoming energy scarcity through power sharing

Anne Schiffer

Abstract: The research explores the intersection of social relations and energy capabilities in the Global South. Specifically, it provides insight into everyday ‘sharing practices’ in overcoming electricity scarcity. This is based on a decade of regular immersions in a rural Gambian community which was supported by a range of qualitative methods including observations and semi-structured interviews. Findings suggest that energy capabilities can be improved at different scales in the community through sharing practices that are historically rooted in social norms and values. This is conceptualised here as collective energy capabilities for mitigating energy scarcity. However, currently sharing practices do not easily translate into sustainable and bottom-up management of collectively used or owned energy assets to achieve more systemic shifts towards democratic models of energy for all.

Keywords: Energy poverty; energy access, energy democracy, Global South, SDG7, capability approach, energy and wellbeing, West Africa.

Note on the author: Dr Anne Schiffer is a Reader in Design at the Leeds School of Arts at Leeds Beckett University. Her research uses design thinking to uncover and respond to energy and water access challenges in the context of everyday life. Currently her research is focused on energy and water access in The Gambia, Ghana and India. She is the author of *Reframing Energy Access: Insights from The Gambia*. She previously worked as community energy campaigner for Friends of the Earth Scotland. Journal publications include: Schiffer, A., *et al.* (2022), ‘Brokering Gender Empowerment in Energy Access in the Global South’, *Buildings and Cities*, <http://doi.org/10.5334/bc.236>; Schiffer, A. (2020), ‘Issues of Power and Representation: Adapting Positionality and Reflexivity in Community-Based Design’, *International Journal of Art & Design Education*, <https://doi.org/10.1111/jade.12291> <http://orcid.org/0000-0002-3880-3998>

1. Introduction

1.1. Electricity access, health and wellbeing

The International Energy Agency (IEA) estimates that globally around 770 million people live without access to electricity (IEA 2021a). Over the past decade approximately a billion people have gained first-time access; however, the electricity access gap is set to rise by 2 per cent, with a concentration of that increase on the African continent (IEA 2021a). Even prior to Covid-19, the energy access gap was predicted to concentrate in Africa over the coming decade (IEA 2019). Nonetheless, it is widely recognised that the pandemic has slowed or even reversed progress towards increasing electricity access as well as transitioning to renewable energy (IEA 2021a; IEA *et al.* 2022; Jensen 2021). Since the beginning of Covid-19 '15 million sub-Saharan Africans who recently gained basic electricity access lost the ability to pay for it. An additional 10 million customers who had gradually upgraded and expanded their energy supply can no longer afford this level of consumption' (IEA 2021b). In addition, the pandemic has disrupted supply chains of renewable energy technologies such as solar panels, further exacerbating the energy access gap (Gebreslassie 2020).

The above paints a useful if bleak picture of energy poverty on a global scale. However, Munro & Schiffer (2019) argue that the binary model of electricity access posed by the IEA and others is problematic for understanding the lived experience of energy poverty. Situated ethnographic research highlights complex socio-cultural, -political, -economic, and -environmental dynamics that shape energy poverty in the context of everyday life which do not simply divide people into those that have access and those that do not. In turn, this has implications for the intersection between energy access, healthcare, and wellbeing.

Access to energy is firmly enshrined in the United Nation's Sustainable Development Goals (SDGs) through SDG 7 which aims to 'Ensure access to affordable, reliable, sustainable and modern energy for all'. Strong interlinkages exist between SDG 7, which is focused on electricity and cooking fuels, and SDG 3 – Good Health and Well-being – which aims to 'ensure healthy lives and promote well-being for all at all ages'.

Firstly, there is a link to SDG 3 Target 3.9 which covers reducing the impact on human health from air pollution which is commonly associated with a lack of access to 'clean' cooking fuels. An estimated 3.2 million premature deaths are attributed to the burning of solid fuels such as charcoal and firewood in household environments where they contribute to a host of illnesses including respiratory infections, ischaemic heart and chronic obstructive pulmonary disease (WHO 2022). This paper focuses on electricity access and, while a case can be made for transitions to electric modes of

cooking (Lombardi *et al.* 2019), other energy sources (biomass, gas) are more common in energy scarce areas of low- and middle-income countries, especially rural and remote contexts (Mazorra *et al.* 2020).

Secondly, electricity access has direct implications for health care services (SDG 3 Target 3.8). This includes the response to Covid-19, where a lack of access to electricity poses a barrier to containing its spread (Broto & Kirshner 2020), and more generally in off-grid healthcare facilities where refrigeration is needed to store vaccines or run equipment (Franco *et al.* 2017).

Thirdly, everyday electricity needs, including domestic lighting, charging appliances, heating and cooling, etc., have far-reaching implications for people's wellbeing, quality of and ability to lead a dignified life (Samarakoon 2019; Tarekegne 2020). It is in the context of everyday electricity scarcity that this article explores collective capabilities for improving equitable energy access and wellbeing.

1.2. Capability and energy poverty

Melin *et al.* (2021: 188) suggest that 'providing energy access is not enough in itself to ensure positive outcomes, or that outcomes will be equal and fair'. The emergence of 'energy services' goes some way in demonstrating a shift in focus from energy access delivery and energy fuels to emphasising the specific needs this access helps to meet (e.g., Bouzarovski & Petrova 2015), but it does not suffice in understanding implications for wellbeing.

The 'capability approach' pioneered by Sen and developed further by Nussbaum and others has been widely adopted in understanding wellbeing and human development. This includes, in relation to product and service design (Steen 2016), community gardens (Clavin 2011), and education (Walker & Unterhalter 2007), to name but a few. However, it is only recently that the capabilities approach has been expanded to studying energy poverty, thereby creating a better link between energy access and wellbeing outcomes (Day *et al.* 2016; Malakar 2018; Middlemiss *et al.* 2019).

In the capability approach, the concept of 'functionings' is used to describe 'beings' and 'doings' such as being in good physical health or going to school (Nussbaum & Sen 1993). Here, capabilities refer to the opportunities a person has to realise functionings they value. In turn, a person's capabilities are a key component of what Sen (1993) conceptualises as 'freedom'. However, in addition to opportunities, a person must also have agency in achieving desired functionings. A lack of either capabilities (e.g., lack of grid infrastructure to connect to) or agency (lack of capacity to raise finance to pay for a household grid connection) can be described as energy-related 'unfreedom' (Samuels 2005).

Kalt *et al.* (2019) observe that what is often described as energy access-related benefits tend to be simply ‘functions provided by energy use’ such as cooking or communication. Building on Nussbaum & Sen (1993) as well as Smith & Seward (2009), Day *et al.* (2016) distinguish between levels of essential or ‘basic’ capabilities such as good relations and more specific ‘secondary’ capabilities that help achieve the former basic ones. For example, these would include energy services such as mobile communication (secondary capability) to sustain said relationships (basic/essential capability). They define energy poverty as ‘an inability to realise essential capabilities as a direct or indirect result of insufficient access to affordable, reliable and safe energy services ...’, making explicit reference to SDG 7.

Studying the intersection between energy and social relations capabilities in the UK, Middlemiss *et al.* (2019: 229) question the appropriateness of what they interpret as ‘sequential’ capability levels proposed by Day *et al.* (2016) – where energy services enable more essential/basic capabilities. They argue that social relations such as sustained friendships can be what others view as essential and can also enable secondary capabilities (such as mobile communication), thereby suggesting a more dynamic or at least ‘bi-directional’ relationship.

This article further explores the crossover between social relations and energy poverty but with a focus on a Global South instead of a Global North context. Specifically, the research uses a capability lens to analyse ‘sharing practices’ (Schiffer 2020) in overcoming energy poverty in a rural Gambian community.

It is recognised that collective practices can achieve individual freedom (Samuels 2005: 39) and as such may recognise ‘responsibility for the community’ and generally ‘taking other people’s well-being into consideration’ (Pelenc *et al.* 2013). Though Day *et al.* (2016) do not make explicit reference to the notion of ‘collective capabilities’, they use the capabilities frame to examine both individual and household levels. Nonetheless, the capability approach is largely focused on individual instead of groups of people. Sen argues that: ‘it would be absurd to say that no one’s life is getting better, but it is a better society. If society is better then in some way somebody’s life must be getting better’ (Samuels 2005: 39-41). However, despite much debate, the capabilities approach has been opened up to the notion of ‘collective capability’ (e.g., Pelenc *et al.* 2015; Griewald & Rauschmayer 2014; Ibrahim 2011a).

In the context of grassroots organisations, Pelenc *et al.* (2013) explore ‘collective capability’ and ‘collective agency’ including tensions between individual and collective scales. It is suggested that exercising collective agency, which they define as ‘capacity for collective action’, means a group of people will gain collective capabilities (Pelenc *et al.* 2013).

In contrast to this, I will demonstrate that, when it comes to negotiating energy access, social relations translate into differentiated capabilities and agency across

individual, household and community scales depending on what type of essential and secondary functionings are to be achieved. This does not necessarily follow the sequential order of exercising collective agency to enable collective capability proposed by others (Pelenc *et al.* 2013). The article thereby contributes additional perspectives on the opportunities and tensions between individual and collective capabilities in the context of energy poverty in the Global South.

The remainder of the article is structured to provide a brief methodological overview, followed by a presentation of historic sharing practices as basis for values that shape collective capabilities in relation to electricity scarcity today. The article then examines some of the barriers to sharing practices including tensions between individual and collective capabilities including to collectively sustain electricity assets such as electric gadgets and infrastructure. This is followed by a discussion that draws out wider implications for democratising energy access and a brief conclusion.

2. Methodology and study context

The article is based on research carried out within the rural community of Kartong, which is located in the southern-most part of The Gambia in West Africa.¹ Through initial field excursions to the area in 2008, 2009 and 2010, I was able to build relationships with members of the community which subsequently enabled me to stay with a local family for annual visits of 1-3 weeks up to the point of the global Covid-19 pandemic. Field trips took place during different times of the year to avoid 'season blindness', which is the limited or skewed understanding of a place and people's practices based on experiences of only one (and typically the dry) season (Chambers 2012: 38).

Through these regular immersions I was able to observe and participate in everyday life including a broad range of changing energy practices related to food, communication, lighting and transport. In turn, this enabled me to witness energy transitions including the arrival of grid infrastructure and electricity-sharing practices focused on here and initially described in Schiffer (2020). The predominately ethnographic and qualitative research was supported by a range of methods, including semi-structured interviews, mapping infrastructure distribution, the facilitation of excursions to renewable energy projects, and co-design workshops to explore perceptions of local energy challenges and future aspirations. Past energy transitions were explored through biographic interviews inspired by and in part carried out collaboratively with Dr Mary Greene at Wageningen University (see Greene & Schiffer 2021; 2018).

¹ The last census was carried out in 2013 and suggested a population of around 3,300 (GBOS 2013).

3. Everyday sharing practices and collective capabilities

Based on a more detailed description of everyday energy consumption presented in ‘Reframing Energy Access: Insights from The Gambia’ (Schiffer 2020), the following explores energy related sharing practices in Kartong through the lens of collective capabilities discussed above.

3.1. Historic sharing practices

To understand current energy related practices, it is useful to first briefly examine historic sharing practices in the community. Elders remember when Kartong was largely self-sufficient in terms of food. As Mohammed² and others recall, ‘we grow what we eat, and we eat what we grow’ (Schiffer 2020: 13). During the rainy season, groups of same aged boys or girls worked together to help each other’s parents to grow rice. Mariama recalls ‘[boys will go] from father to father [to plough fields] and we will go and transplant [rice] from mother to mother’ (Schiffer 2020: 16). This example of a historic sharing practice speaks to the notion of groups exercising agency by participating in collective action and thereby enabling collective food growing capabilities (Pelenc *et al.* 2013).

When food shortages did occur, people who struggled to feed themselves would have been stigmatised as ‘lazy’ for not having worked hard enough to produce rice during the rainy season. However, others in the community shared their surplus food with the households affected by hunger. To avoid causing members of these to feel ashamed, food was shared after dark. In other words, these particular sharing practices were carried out in secret to preserve people’s dignity. ‘We want to be equal, we don’t want to demote anyone’, explains Mariama (Schiffer 2020: 14).

Here, the collective capability to feed others in the wider community in a dignified manner enabled individual and household functionings of being sufficiently nourished, as well as leading a public life without shame (Sen 1993).

In Kartong, it was also common for children to grow up with childless relatives, thereby providing additional household labour. Hawa, one of the oldest women in the village, says that what she remembers as a child is that she worked. When she was around twelve, she transferred to another compound in Kartong to live with a relative who could not have children of her own. She cooked, fished for oysters in the river, and worked on the rice fields during the rainy season. She stayed in this home until she got married in her early twenties.

²All names have been changed to preserve the anonymity of interviewees.

Similarly, Fatou, explains that she transferred to her grandmother's place at around the age of ten. She helped her relative with vegetable gardening and carried out chores around the house including cooking and washing clothes.

While moving in with relatives to provide additional labour was reported by interviewees as a matter of fact and not as a negative, it does raise questions about tensions between individual freedoms and collective resilience and wellbeing of extended family networks. In the context of a patriarchal society where women and girls were responsible for the bulk of household chores, a conflict between the individual and the collective also takes on a power dimension along gendered lines.

What I have broadly described as 'sharing practices' are clearly based on historically collective values and social relations in this rural community which continue to shape life in Kartong today. As such it is still common for children to live for prolonged periods of time with relatives, sometimes to attend school or strengthen family ties including relationships that span the Gambia–Casamance (southern Senegal) border. Similarly, sharing of food continues to be an important socio-cultural practice that may include supporting those experiencing hardship, as well as simply sharing a meal gathered around the same vessel and greeting passers-by with 'na kontong' – 'come eat lunch'.

Building on the historic sharing context described above, the following explores how collective capabilities translate to everyday consumption of and access to electricity.

3.2. Overcoming electricity through sharing practices

In 2013 the first households in Kartong were connected to grid electricity. Prior to this, some electricity was available, including through diesel generators, battery powered gadgets and small solar panels. When grid infrastructure reached the village, it was only partially covered, favouring the more established and densely populated areas of the settlement area. Years later, some extensions have been made, but significant parts of Kartong remain without access³ to the electricity grid (Schiffer 2020), or on what Golubchikov & O'Sullivan (2020) refer to as the 'energy periphery'. As such, there is a spatial divide between those that have the capability to access grid electricity and share energy, and those that energy may be shared with and to whom electricity access is thereby extended.

In an attempt to overcome this continued spatial divide across parts of the settlement area, some households have created permanent or temporary extensions to support neighbours and friends. During a family celebration in an off-grid cluster of

³ See Schiffer (2020) for maps depicting changes in the level of grid electricity.

buildings, the closest household with a grid connection ‘provided access via a series of extension leads lying in the grass along the edge of the [local] football field. For the short period of time that electricity was especially needed, it was sufficiently met through this temporary connection’ (Schiffer 2020: 85). Here, the collective capability to meet energy needs (achieve energy related functionings) depends on the social relations with one grid-connected household.

Similarly, a Kartong man shared a spare permanent connection with his neighbours. Through his employment, the individual is entitled to a grid extension to his home, and the National Water and Electricity Company subsequently extended the local grid accordingly. Several meters were installed in the man’s family compound, which is comprised of several extended households as is the norm. However, one such meter was not going to be used and the individual therefore offered to build a private extension to his neighbours where the meter is now installed instead. He ‘put in an underground cable to connect the spare meter to a neighbour’s compound who would otherwise not have benefitted from grid electricity’ (Schiffer 2020: 86). In this example, social relations helped improve the energy capabilities of the neighbouring household to enable valued functionings associated with access to electricity, including lighting, charging equipment and access to electricity for entertainment purposes.

Prior to grid electricity reaching Kartong, there were a number of locations where people could charge gadgets such as mobile phones. This included so-called video-clubs, a local form of cinema, often powered by a diesel generator. For an extra fee, mobile phones could be charged here. When grid electricity arrived in 2013, ‘the mobile phone charging business disappeared almost overnight’ (Schiffer 2020: 85). Despite an initial small number of household connections across the settlement, friends and relatives were able to charge phones in households that were grid connected (Munro & Schiffer 2019). This is in line with Middlemiss *et al.*’s (2019) argument against a sequential understanding of capabilities in the context of energy poverty. The example demonstrates how social relations both enable energy services-related functionings (mobile phone charging), and sustain social relations through ‘secondary’ functions facilitated by this (staying in touch with loved ones further afield using mobile phone communication). Interestingly, ‘The charging business [...] reappeared recently to serve migrant workers who lack the social ties within the community’ (Schiffer 2020: 85), illustrating the socio-spatial dynamics of energy poverty for those that find themselves beyond the grid and outside of local community sharing networks – a socio-cultural instead of spatially induced symptom of being on the energy periphery. The absence of social relations for those newcomers leads to what can be described as a ‘capability deficit’ (Ibrahim 2011b), a lack of opportunity to benefit from electricity sharing practices.

Energy-related sharing practices also take place at compound level – the extended family home which usually consists of several individual households and communal facilities such as kitchens. Domestic chores such as cooking, cleaning and childcare typically still fall on women and girls living within the compound – wives, co-wives and daughters. Sometimes women share chores such as cooking lunch, taking it in turn to prepare food for the wider family using the aforementioned communal kitchen buildings. For larger gatherings such as naming ceremonies following the birth of a child or religious events, several women may work together to prepare larger quantities of food. As such, the notion of shared labour established historically continues to shape food preparation today, providing a sense of collective capability for women but within the confines of the patriarchal construct.

While cooking still largely relies on biomass, other chores are increasingly linked to the use of electricity, reducing daily drudgery. Electric irons and kettles needed to achieve functionings such as boiling water or ironing clothes are becoming more common. However, not every household within a compound owns electric gadgets, which are therefore shared with extended family members. For example, a single kettle can be observed as it is carried between different parts of the compound throughout the day, used to support an informal business selling hot beverages to passers-by on the roadside during breakfast time, boil water for tea or coffee by one woman after lunch, or to provide water for a hot bath for another at night. Therefore, one household having access to electric gadgets that are seen as convenient, also benefits the extended family, speaking to their collective capability of achieving valued functionings, such as having hot baths during cool evenings.

Larger appliances, for example fridges, are also shared. Women can be observed occasionally using a fridge in another household located in the same or a nearby compound to store and so prolong the shelf life of fresh fish. Only here the fridge does not move within or between compounds, it is the contents that do.

Finally, compounds have installed lightbulbs on exterior walls of their houses ‘providing informal street lighting that serves the wider community’ (Schiffer 2020: 67). In turn, this benefits people returning late at night or walking to the mosque during the early hours of the day.

The findings presented above demonstrate how social relations facilitate collective capabilities in accessing electricity at individual (e.g. phone charging) and collective scales (household, compound, wider community). The underlying value of care for others in the community which is demonstrated through electricity sharing practices is summed up by Sophiatu:⁴ ‘the best life is to survive from what you sweat [for] and

⁴Based on semi-structured interview dated 2 February 2018.

to share with people what you have.’ This closely aligns with Pelenc *et al.* (2013) in ‘responsibility for the community’.

4. Tensions between individual and collective energy freedoms

As demonstrated above, electricity-related sharing practices are facilitated through social relations. These enable overcoming energy scarcity, if not entirely, at least by improving the conditions for people temporarily. However, a more nuanced perspective highlights the fact that social values around sharing also contribute to tensions between people and in relation to individual versus collective freedoms. The following presents ethnographic findings to illustrate this point, again starting by providing a brief historic perspective, before examining tensions in relation to current electricity-related sharing practices.

4.1. The burden of sharing with those on the energy periphery

In Greene & Schiffer (2021) we explore the evolution of local mobility practices or ‘mobility careers’ based on semi-structured biographic interviews with elders in Kartong. At a time when motorised transport was rare and there were only a few bicycle owners in the community, these were heavily relied on for communication. Lamin recalls, ‘Like if there was somebody [who] died and you wanted to communicate to the relatives in the other localities, you would go to that particular person with the bike and borrow it from him’ (Greene & Schiffer 2021: 144). Those who owned bicycles faced constant pressure to lend them out for urgent matters faced by members of the wider community.

Similarly, prior to mobile phones becoming widely available in The Gambia, few compounds in Kartong had access to land lines. As Ousman⁵ explains: ‘The pressure on individuals who had landlines in their compounds to pass on messages or make appointments for other people to receive phone calls was [eventually] mitigated through the introduction of telecentres’⁶ (Schiffer 2020: 21). Both examples illustrate how individual freedoms were previously compromised for the benefit of others in the community, and the pressure faced by individuals who had access to perform energy services whether related to mobility or communication.

Today, there is also an expectation or pressure on individuals who no longer live in

⁵Based on semi-structured interview dated 2 February 2018.

⁶Similar to internet cafes, telecentres were ‘commercial entities that provided access for those who could not afford the monthly subscription fee of a landline and wanted to pay for single calls instead’ (Schiffer 2020: 21)

the community to share resources, including in the form of remittance payments from abroad. Relatives living in the European or USA diaspora have paid for appliances such as washing machines, tablets or television sets, improving communication and other energy services. In fact, in 2020, remittance payments accounted for approximately 16 per cent of the country's Gross National Product (World Bank 2022).

A recurring theme for Gambians travelling back from abroad are complaints about the expectations on them to provide material and financial resources, which even lead some to visit less often than they would like. This highlights the tensions between an individual's agency to provide for others, and freedom to freely choose how and when to spend resources in the context of social norms and pressure to share.

In Kartong remittance payments have even paid for some local extensions to the grid, enabling additional households to get connected:

a Gambian living abroad made a donation to cover the cost of several [grid] extension poles, benefiting members of his family and nearby neighbours. However, two neighbouring compounds happened to apply for a meter through a different NAWEC [National Water and Electricity Company] branch to the donor's family and it just so happened that these arrived and were installed first. Feeling that this was unfair because it was their family's connection who paid for the poles, the donor's family complained to the point that the neighbours decided to have their meters taken down until the donor's family received their connection (Schiffer 2020: 86).

Unfortunately, the situation further escalated and ultimately resulted in the total breakdown of relationships: 'The neighbours involved all decided to stop sharing their resources' with the donor's family next door, which included a private well (Schiffer 2020: 86). While social relations improved household capabilities to achieve valued functionings requiring electricity access for all, social relations with immediate neighbours suffered.

The above illustrates how sharing practices can lead to disputes, place a burden on or otherwise negatively impact individuals and households. It is a reminder that a 'community' does not consist of a homogeneous group of people where everyone shares the same values or interprets social norms in the same way. Tensions can arise between individual and collective capabilities to access and share energy resources, including larger infrastructure developments such as grid extensions and energy finance associated with this.

4.2. Sharing practice barriers norms in collective infrastructure management

As previously discussed, gadgets such as kettles which are shared across different households support collective capability at compound level. Arguably however, only up to the point where said gadgets breaks down. While there is collective capability to

access electric household equipment through sharing practices, there is not necessarily a sense of shared responsibility for replacement or repair when breakages occur. Instead, women may be forced to revert back to previous practices such as heating water using wood fires or ironing clothes with charcoal irons. In the case of household gadgets, women may lack access to finance and/or repair skills, and instead rely on leveraging social including international relations for replacements. Nonetheless, while sharing practices are used to facilitate energy services, they do not translate into collective capability for maintenance of collectively used gadgets and equipment, as could be reasonably assumed.

Similar issues emerge in relation to community-wide infrastructure projects. Kartong has a history of communal infrastructures that have eventually fallen into disrepair. This includes the example of a street lighting initiative I describe in Schiffer (2020: 23).

The unstable political situation around the time of the country's 1994 coup d'état had a negative impact on businesses operating in The Gambia including some of which had to close down. Employees of one such business were compensated with equipment that was no longer needed. This included a technician from Kartong who was given a large diesel generator that was too big to be used domestically. He decided to offer it to the community to generate electricity for street lighting.

At the time, even much more densely populated urban areas to the north would have lacked street lighting, speaking once again to the collective capability of the Kartong community, enabled through strong social relations that emphasise the sharing of resources for the benefit of everyone. 'However, fuel and maintenance costs were to be covered by the community, which proved to be challenging and the project eventually collapsed' (Schiffer 2020: 23).

This may be attributed to limited agency to raise finance for ongoing repair. However, an observation by Yankuba reflects on socio-cultural attitudes. Standing under the remains of a broken windmill that was once used to supply water for the settlement he says: 'if everybody owns it, no one cares' (Schiffer 2020: 87). While there are collective capabilities to implement infrastructure projects, these appear to be lacking when it comes to maintenance and the long-term sustainability of these for the benefit and wellbeing of the community as a whole.

5. Discussion

The presentation of ethnographic findings above demonstrates that sharing practices enhance individual and collective capabilities for overcoming electricity scarcity through social relations. This is rooted in historic practices and social values that

shape electricity access today. These shared values are the basis for collective capabilities in achieving both social as well energy service-related functionings.

Those who have the capability and agency to share electricity achieve an essential functioning of demonstrating care for others and social recognition that conforms with socio-cultural norms and values. They facilitate energy-related functionings by sharing grid electricity, electric gadgets and equipment, or energy finance, as individuals (including those who are part of the Gambian diaspora) and households. Those with whom electricity is shared are using their agency to leverage social relations in order to improve their capability as individuals or groups to achieve essential and secondary functionings associated with electricity. I suggest that groups or collectives include households, extended family compounds, as well as the wider community. Unlike Pelenc *et al.* (2013) who examine collective capability and agency through actions of a specific group, collective energy capabilities here combine two groups that act in symbiosis for a common good – those that share electricity-related materials (e.g. gadgets), services (e.g. mobile phone charging) and other resources (e.g. finance), and those that these are shared with. Integral to the concept of collective capabilities to reduce or overcome energy scarcity here are the values and social norms embedded in social relations that facilitate the former through sharing practices.

This form of collective capability is however not a silver bullet, potentially leading to tensions between individuals and/or households as well as placing collective needs before individual freedoms. Importantly, collective capabilities also do not displace government responsibilities of removing ‘unfreedoms’ (Samuels 2005) by providing electricity to all, ensuring that this is affordable and improves the reliability of electricity access in line with SDG 7. Social relations alone do not constitute capabilities for sharing. Grid electricity needs to be both available and affordable to people in the first place. However, presentably national generating capacity for electricity is limited, resulting in frequent load shedding (planned blackouts), while it is also expensive due to the country’s dependence on fossil fuels for electricity generation. Furthermore, electricity sharing practices may support rather than challenge power relations in the context of patriarchal structures and gender norms.

Finally, values associated with sharing practices do not easily translate into successful management and long-term maintenance of household and communal energy assets. This point is important, as systemic energy poverty could theoretically be alleviated from the bottom up. For example, increasing renewable energy sources at household level could be feasible, but countless broken solar household installations suggest otherwise. This point was recently highlighted by Munro *et al.* (2022) who call for a repair research agenda of off-grid solar installations in the Global South. Similarly, energy services such as street lighting could be installed and operated at community level independent of national electricity grids, but have thus far failed to last.

The barriers to sustain assets such as finance and repair economies need further exploration. They are particularly relevant to the wider context of ‘energy democracy’ (Szulecki 2017) which is increasingly seen as an alternative to centralised mechanisms in developing energy transitions, including first-time energy access and gender equity in energy systems change (MacEwen & Evensen 2021). Here, the Africa Renewable Energy Initiative (AREI),⁷ an Africa-owned and Africa-led programme ‘to accelerate and scale up the harnessing of the continent’s huge renewable energy potential’ (AREI 2016: 5), recognises that ‘with a highly diversified ownership base compared to that of conventional, centralised energy systems, a vast number of households, communities, cooperatives, small and medium-sized enterprises, as well as larger companies, become both producers and consumers of electricity. This will empower Africa to leapfrog to the energy system of the future’ (AREI 2016: 5). Similarly, Hungwe *et al.* (2021: 3) envision a 100 per cent renewable energy system for Africa which ‘must be socially-owned and community-based, and not be a pretext for privatising the electricity sector.’ Arguably, sharing practices provide a value foundation for this vision of bottom-up energy access transitions. If and how existing practices can be adapted to go beyond mitigating everyday experiences of electricity scarcity requires carefully designed and iterative policy interventions that recognise collective capabilities as an asset on which to build but not solely rely.

6. Conclusion

This article has examined everyday electricity sharing practices in an under-served rural Gambian community. It provides an alternative understanding of collective capabilities in the context of energy scarcity in the Global South, which is based on shared social norms and values that create a symbiosis between those that have the capacity to share and those with whom electricity and related resources are shared. It thereby makes an original contribution to literature exploring the intersection of social relations and energy capabilities at different community scales.

The research demonstrates collective capabilities as a mechanism for overcoming everyday electricity scarcity and thereby contributes to collective wellbeing in line with SDG 7. However, it also highlights the limitations of this, including tensions between individual and collective freedoms, as well as regarding more systemic shifts towards bottom-up mechanisms to achieve electricity access for all.

⁷ AREI launched at the Paris Climate Change Conference in 2015 and is funded through the United Nations Green Climate Fund.

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