



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

'Mind the gap

Citation for published version:

MacEwen, M & Evensen, D 2020, "Mind the gap: Accounting for equitable participation and energy democracy in Kenya", *Energy Research and Social Science*, vol. 71, 101843.
<https://doi.org/10.1016/j.erss.2020.101843>

Digital Object Identifier (DOI):

[10.1016/j.erss.2020.101843](https://doi.org/10.1016/j.erss.2020.101843)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

Energy Research and Social Science

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



Abstract

This article advances theory and policy debates which focus on equitable participation in renewable energy. We follow the methodological approach of grounded theory, whereby we theorise on the basis of qualitative empirical research. Patterns in human behaviour are identified through a case-study concerning women's inclusion in the decision-making processes, surrounding uptake of solar energy in Makueni County, Kenya, highlighting a pitfall in current energy democracy theorising. We conclude that current conceptualisations of energy democracy are limited as theorists and activists have failed to look at the phenomenon through a gendered lens. Although energy democracy is principally concerned with breaking down power structures and increasing public participation in energy-related decisions, it has hitherto failed to recognise the inherently gendered dimension of the transition to distributed renewable energy production that it promotes. Furthermore, our empirical findings from Makueni highlight that women's empowerment can serve as a useful means of evaluating the holistic reach of energy democracy. We demonstrate how processes of women's empowerment have aided the democratising of energy structures in Makueni County. If energy is to move closer to the people, it is important to interrogate who is winning and who is losing in this transition; therefore, energy democracy theorising can be advanced by incorporating feminist epistemologies, which analyse constructions of the self and of social hierarchies.

1. Introduction

Although energy democracy is centrally concerned with breaking down power structures and increasing public participation in energy-related decisions [38; 41], it has hitherto stopped short of recognising the gendered dimension of the transition to distributed renewable energy production that it promotes [39; 40]. Energy democracy has sought to question processes of exclusion without confronting the gendered power differentials that inevitably play out in any decentralisation of power. If energy democracy activists and scholars seek to reconfigure the global energy system, it is important that gender issues are successfully mainstreamed to avoid transferring the inequitable gender relations of the male-dominated [42; 43] centralised fossil fuel industry into the new energy model, and thereby avoid undermining energy democracy's quest for a fairer energy system. These theoretical perspectives were reached by continually comparing qualitative data whilst analysing emergent concepts and contradictions throughout the research process. As such, this paper takes a grounded theory approach, aiming for the creation of theory through rigorous analysis and categorisation, through constant comparison, of qualitative data [67; 137; 198].

Two key arguments emerge from empirical research in Makueni, Kenya: (1) conceptualisations of energy democracy are constrained by not incorporating feminist epistemologies¹ and (2) women's empowerment can serve as a useful means of evaluating the holistic reach of energy democracy. The process of women's empowerment occurring in Makueni (via participation in solar energy implementation) is analysed through Kabeer's [55; 56; 57] empowerment criteria. We demonstrate how the process of empowerment aided the democratising of energy structures in Makueni County, therefore drawing attention to the synergies between two schools of thought: energy democracy and women's empowerment.

¹ Although feminist scholarship is vast and poly-vocal, we take feminist epistemologies to mean modes of knowledge that are particularly attuned to individual agency and creations of the self, within a social strata governed by social hierarchies and processes of marginalisation. Jackson [23, p 527]

(ii) *Introducing Energy Democracy and Women's Empowerment:*

Both concepts are concerned with the equitable transition from one state into another [4; 567] and are spectrums grounded in normative concerns for social justice. Indeed, both phenomena were born of activism [45; 46; 56]. Women's empowerment became prominent in academic scholarship in the late 1980's when feminist scholarship helped integrate the concept into the realm of gender and development [49; 50; 51; 52; 53; 54], whereas energy democracy entered academic and policy circles in the last five years [197].

Both concepts are concerned with providing the resource poor with material resources. Universal access to sustainable energy represents a core pillar in energy democracy discourse [38, whereas access to educational [2] and health care facilities [72; 73] are two of many physical resources central to women's empowerment discourse. Nevertheless, both discourses are also invested in immaterial resources, termed 'social capital' in international development circles (3). If we take the approach to education adopted by women's empowerment scholars, for example; Swai [47] argues that education as a technique for empowerment fails if the way in which this intervention interacts with the existing social strata is not considered. For Swai – and Kabeer [56], whose empowerment framework structures our analysis – empowerment can only occur when the physical and social environment of a resource is considered. Thus, Swai argues, it is imperative to identify what educational tools and curriculum will improve the lives of women and what educational systems will reinforce prescriptive gender norms. It is also essential to examine cultural, political, and/or economic barriers that exclude girls from education, such as preoccupation with domestic commitments.

Similarly, energy does not function in a vacuum [12; 37; 125]. When a new energy source is introduced into a community, it is important for policy makers and development practitioners to interrogate who is benefiting from the system (and why) and who is being harmed by the system (physically or socially) [62]. Energy democracy recognises social contingencies; hence, akin to women's empowerment discourse, it advocates for systemic change rather than simply resource implementation. The frequently cited slogan of energy democracy – 'Resist, Reclaim,

Restructure’ – encompasses this idea, and could easily be applied to feminist advocacy for women’s empowerment [4].

Throughout this paper our definition of power is aligned with energy democracy and women’s empowerment literature in the understanding that power is both access to resources and involvement in decision-making process surrounding resources. Both energy democracy and women’s empowerment are inherently concerned with power, critiquing social and spatial power structures that serve the interests of elites and marginalise other members of society [38; 74]. They understand people’s involvement in decisions that directly impact their lives as fundamental to a fair redistribution of global resources, and are invested in the wider goal of democratising institutional structures [40; 74]. Indeed, research on women-led organisations advancing energy transformations reveals the role of women’s leadership in movement building through forming relationships in communities and attention to career advancement [201].

Energy democracy argues for a direct link between communal and municipal powers of governance in advancing democratic energy systems; it is theorised that the decentralisation of energy systems facilitated by renewable distribution and community ownership should be mirrored by (and are also the result of) the decentralisation of political institutions [39; 40; 200]. Energy democracy discourse therefore presents community ownership and co-operatives as a key vehicle to democratise the energy system, but this localisation of energy source is always understood within the wider context of political institutionalism [118, 204].

Crucially, however, despite the fact that Venezuelan activist and researcher Edgardo Lander has argued that debates around energy democracy must begin with the question ‘energy for whom?’ [38, p10], energy democracy discourse has been less concerned with how resources interact with people at the level of the individual than women’s empowerment scholarship. For feminist scholars, women’s empowerment, beyond its ultimate goal to facilitate wider societal change, must begin by altering people’s individual mindsets so that they critically question the gendered organisation of the world they occupy [56]. This is the crux of our critique of energy democracy literature (emerging from qualitative research in Makueni) – energy democracy scholarship

would benefit from an awareness of constructions of the self and how human agency interacts with social power dynamics. Interrogating the way in which marginalisation is constructed and reproduced in society can provide clarity on how marginalisation relates to people's interaction with energy systems. Gender codifies people's lives worldwide [68; 69; 70; 71] and is a site of injustice in the current global energy system [42; 43]; therefore, its complex power dynamics must be integrated into energy democracy's understanding of power and its relation to renewable deployment.

2. Theoretical Background: Energy Democracy

As we seek to advance conceptualisations of energy democracy, it is imperative to first examine the various scholarly traditions that led to the emergence of this phenomenon. Scholarship on energy democracy has become increasingly centred on the notion of socio-technical transitions, which understand an energy system as a complex web of interacting technologies existing in relationship to human interests, needs and mindsets, with these factors resulting from historical socio-political circumstances [5; 6; 7]. Socio-technical systems literature is also primarily concerned with the sustainability of energy infrastructure, as well as the transition into a decarbonised energy system [5; 110].

The focus on socio-political aspects of energy transitions has roots in different academic fields. In international development this focus resulted from a broader move from technocratic development interventions toward people-centred development [8; 9; 10; 11]. Development practitioners became aware that communities must interact with a given renewable energy technology to maintain and pay for it, with the subsequent focus on social dimensions stemming from a concern for a project's sustainability [12]. This emphasis on community participation in energy has also produced a critique of top-down approaches to energy implementation [13; 14; 15]. Studies of Sub-Saharan Africa have shown that renewable deployment is shaped as much by social, political and environmental forces as by economic and institutional interests; therefore, any implementation strategies must be context-specific [12; 104; 105; 106; 205].

Beyond socio-technical transition, energy democracy is also rooted in scholarship on ‘energy justice’, which is concerned with the equitable distribution of, and participation in, renewable energy systems on the back of social justice claims [111;118]. On these normative foundations, energy democracy recognises that the social processes surrounding renewable implementation are of equal importance to the technology in terms of justice and sustainability [39; 205]. Energy democracy, however, goes further by stressing the political dimensions of energy transitions; it recognises a relationship between energy systems and political systems [39]. Understanding politics as the driving factor behind energy infrastructures and transitions [38], energy democracy is thus aligned with political-economy scholarship that is concerned with the political dimensions of energy transitions – both examine how power is distributed and manifested in political and energy systems [40; 119; 120; 121; 122; 123]. Ultimately, energy democracy fuses together elements of sustainability, justice and politics from different schools of thought and places a greater emphasis on democratising energy through public participation and ownership [40; 118; 124]. Energy democracy scholarship and activism sees itself as part of a wider democratising process [197].

Despite energy democracy valuing democratisation, its attention to gender is limited. The majority of the literature concerning gender and electricity has focused on end-use or access rates (80) compared with the socio-political-intricacies of implementation and distribution [16]. This has resulted in the gendered dimensions of set-up being overlooked [62; 78; 127] even though empirical examples demonstrate that women’s involvement in the supply of energy alters perceptions of gender roles in positive ways (i.e. prescriptive gender roles are questioned) and women gain more access to the source [11; 77; 79; 201]. The gendered dimension of energy democracy is one element contributing to diverse and heterogeneous ‘publics’ that each can speak to the legitimacy of energy projects [202].

3. Contextual background

(i) Makueni County:

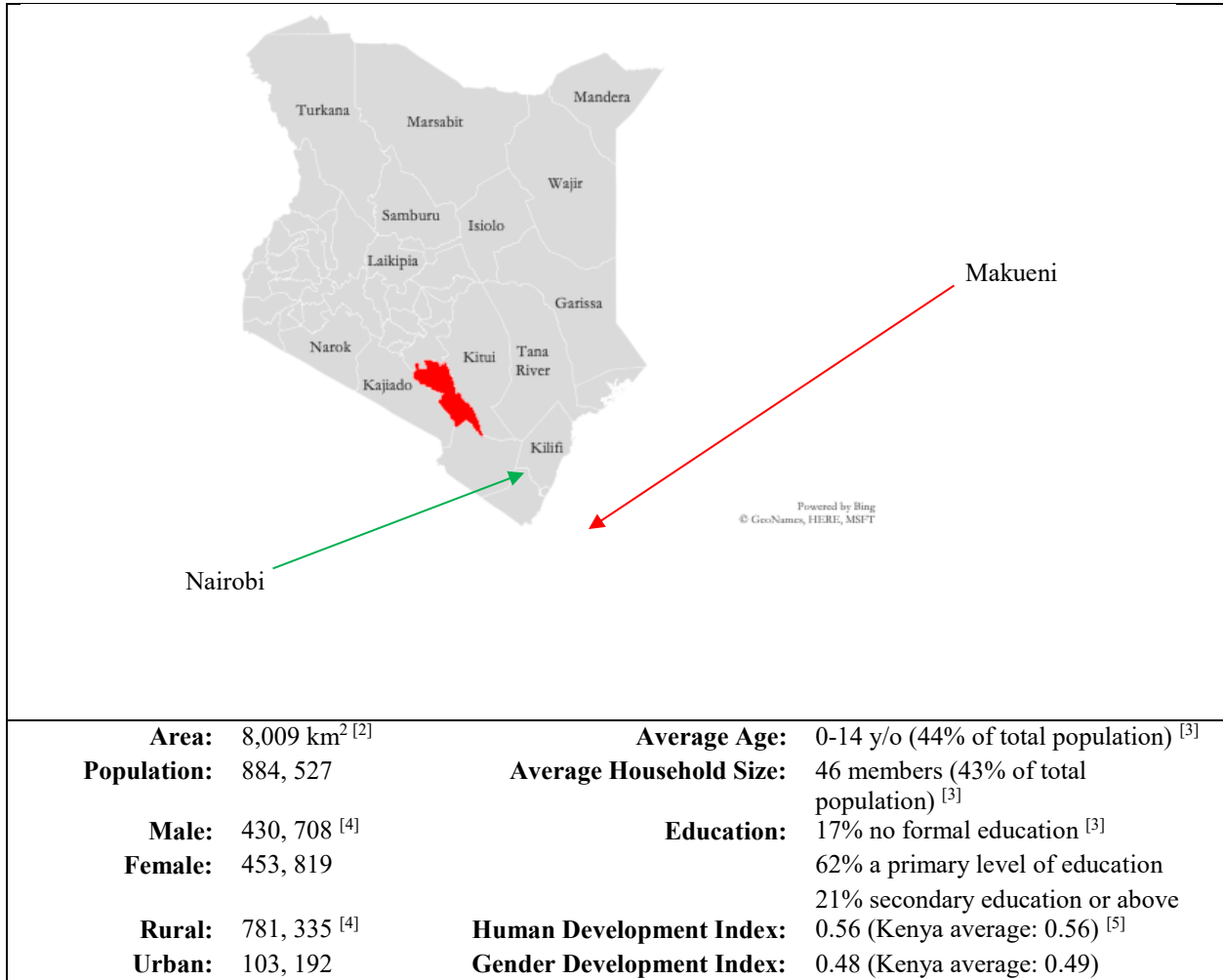


Fig. 1 Map of Kenya

(ii) Public Participation in Makueni:

Makueni serves as an interesting case-study to extrapolate meaning related to energy democracy theorising as it is the site of competing power structures; externally, it sits in a newly devolved Kenya (since 2013) and, internally, international donors, NGOs, and other civil society organisations operate alongside the County Government [17]. The grounds for participation

² [146]

³ [145]

⁴ [147]

⁵ [148]

established in the constitution have been exploited by NGOs and CSOs in institutionalised ways across Kenya. Nevertheless, there is a tension between the Government and some civil society groups as historical interest groups, NGOs, and trade unions were introduced to counteract the instability of the state [19].

The impact of devolution on the decentralisation of power in Kenya is specific to each of the 47 different counties [199]. The County Government of Makueni (GoM) is committed to redistribution of power and resources through a strong policy of Public Participation and investment in development projects [144; 149; 199]. The policy of Public Participation subdivides the county into five layers of governance that partake in public fora: (1) village level, (2) cluster level (made up of 5 villages grouped together), (3) the sub-ward level, (4) ward level (made up of 7 geographical regions that divide that county), and finally (5) the county level (20). It is also taught via civic education that the first layer of governance is the self, the second is the household, and that everyone should be given the dignity to make decisions that impact both levels [100]. This ethos is called operation *Mwolyo Out*, which entails a shift to citizens overseeing development projects through direct governance and public consultation. This involvement of the community in decision-making is embodied in the GoM participatory budgeting scheme, where annually 30 budget consultations take place at Ward level to determine resource allocation [20; 95; 96] – in the FY 2014/15 almost 15% of the county participated in deliberations [96].

The success of the participation framework in Makueni is evidenced through the fact the in August 2018 the Council of Governors held a two-day peer-to-peer learning workshop in collaboration with development partners so that other counties could learn from Makueni's success. Indeed, other counties have highlighted it as their benchmark to emulate in terms of effective public participation (Wajir, Nyeri, Nyamira, Lamu and Tana River county) [20].

(iii) Energy in Makueni:

The ideals of public ownership and participation inherent to energy democracy are thus manifest in the GoM's policy framework that advocates for the decentralisation of power to achieve a

fairer redistribution of resources. To take advantage of Makueni's ten hours of sunlight a day (on average), there are multiple solar lantern and solar home systems (SHS) distributors within the county – GIZ, M-Kopa and D-light were the three that were mentioned throughout our research (GoM, 2018b). Furthermore, with government support, the distributors train women and marginalised groups in selling SHS [20]. Lastly, a solar mini-grid in Kitonyoni village, set-up in collaboration with researchers at the University of Southampton, is now run as a community cooperative, supplying approximately 3000 people with electricity via the marketplace, school, hospital and solar lantern charging points (22).

Nevertheless, only 7% of the households in the County have access to electricity for lighting, with the distribution of population by mode of lighting at: lantern 63.2%⁶ (kerosene or solar), tin lamp 25.3%, electricity (Kenya Power) 5.7% and solar 3.8%. Solar power is being pursued in an attempt to meet the household needs of water (through solar-pump operated boreholes), lighting and phone charging [100].

4. Methodology

Qualitative data was collected via key informant interviews and focus groups. In total, the lead author interviewed 32 individuals in Makueni. Interviews began with members of the Kitonyoni mini-grid cooperative and county officials, and as democratic and gendered decision-making emerged, further interviews were conducted with community members who could (potentially) speak to aspects of women's empowerment: a women's group and individual female solar sellers. Interviews were semi-structured, allowing for elaboration and questions, as the nuances of people's experience with solar power was understood as key to determining inequities in decision-making processes. The research was influenced by feminist research stressing the importance of the politics of speech and lived (gendered) experience in determining women's role in decision-making [23; 206]. Thus, interview questions were open-ended and concerned

⁶ Although these are the official figures, a County official in the energy department said that currently around 80% of county households use solar lanterns, due to the decrease in solar prices in the last five years.

with experience. For example, the following question sought to gain insight into perspective of husband/wife decision-making:

'If a household bought a solar lantern and the husband wanted the light to go in the living-room and the wife wanted the lantern to be in the kitchen, where would it go? And how would you resolve the conflict of interest?'

At the beginning of each interview a timeline of participation with the solar system/device was requested. The line of questioning then focused on examples of personal participation in decision-making concerning energy, perceptions of public participation in the county, and household decision-making concerning energy and gender. To avoid impressing preconceived notions of empowerment on the interviewees, the word 'empowerment' was avoided in the line of questioning.

We took a 'grounded theory' methodological approach, as developed by sociologists Corbin and Strauss [67]. Grounded theory is when theory is generated based on qualitative empirical findings – findings are generalised to theory rather than to a population [67]. We continually analysed data throughout the research process, coding the findings until distinct categories emerged, such as the importance of including marginalised groups in decision-making. Categories were then compared with each other and literature until theoretical findings were deduced [134]. For instance, we compared the identification of public participation as key to fair resource distribution in both our interview data and theoretical approaches. The purpose was *generation* of theory, as opposed to confirmation or validation of extant theories. Initially our research focused on equitable participation in solar systems in Makueni County. It was informed by theories of energy justice, socio-technical transitions, energy democracy, women's empowerment and people-centred development. As categories emerged, considerable synergies became clear between conceptualisations of energy democracy and women's empowerment, themselves manifest in decision-making processes regarding solar energy in Makueni. The research was therefore orientated to understanding processes of women's empowerment in Makueni via participation in deliberative processes surrounding solar power, and the ways in

which this form of empowerment linked to a democratisation of the energy system (and deliberative processes more generally) in the county.

Analytical framework:

Through the grounded theory approach, constant comparison of emergent themes led us to use Kabeer's [56; 57] empowerment criteria to structure our findings. For Kabeer, empowerment is centrally about 'choice'; one can only say that empowerment has taken place if an individual (or a social group) goes through a process granting meaningful choice where it was previously prohibited. Empowerment provides an individual with agency to make decisions concerning important aspects of their lives, *and* this must alter the consciousness of the individual and wider society. In the vein of feminist epistemologies, change is required at both the individual and collective level, resulting in a redistribution of power and resources [56; 57]. Kabeer thus conceptualises empowerment against three indivisible indicators: (1) resources (pre-conditions), (2) agency (process), (3) achievements (outcomes).

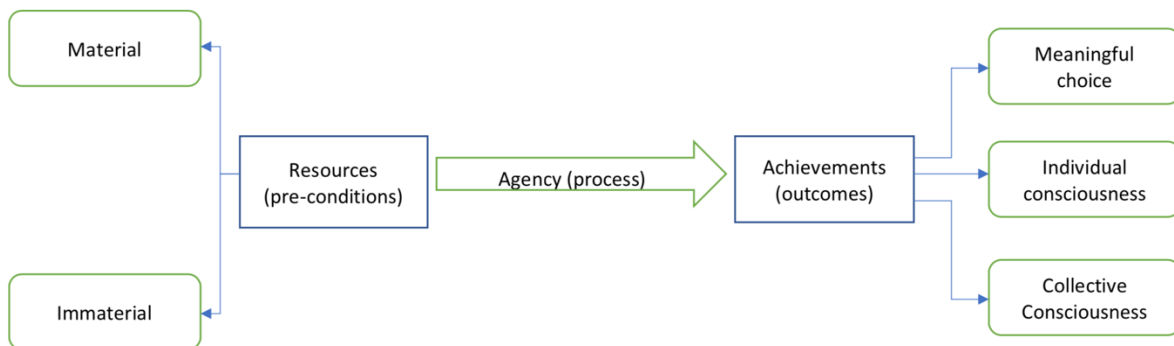


Fig. 2 Kabeer's empowerment framework

The conditions in which women experience a lack of choice result from both material and immaterial resources. Women can be disempowered simply because of poverty; meaningful choice is unavailable because there are not multiple resources. Nonetheless, the inaccessible nature of resources is inseparable from social-political processes (that differentiate based on gender, geography, race, etc.). Women can be excluded from decision-making processes as a

result of social status; on the other hand, ‘head of households, chiefs of tribes or elites within a community are all endowed with decision-making authority with particular institutional contexts by virtue of their positioning within those institutions’ [56, p437]. Therefore, ‘conditions’ result from historical power differentials that manifest in social organisation and institutions.

In this study, 32 interviews in Makueni are analysed through Kabeer’s three indicators to determine the extent and forms of women’s empowerment. We then analyse the ways in which this change mirrored and fostered equitable decision-making and democratised the energy structures in Makueni. Our analysis highlights the interconnected nature of women’s empowerment and energy democracy, and clarifies the limitations of energy democracy theorising that overlook gendered constructions of the self.

5. Measuring Empowerment in Makueni

For the sake of clarity, we have artificially separated the ways in which Kabeer's three criteria correspond to women's participation in the deliberative processes of solar energy implementation in Makueni. There is overlap in these categories, and the success of one is always in relation to that of the other two. Indeed, Kabeer argues that the 'fit' between the indicators – their inherent interconnectedness – solidifies their validity as a measurement of empowerment [56, p452].

(A) Pre-conditions:

To demonstrate that empowerment took place, disempowerment must be a pre-condition; there must have been a deficit in both material and immaterial resources.

(i) Material resources:

Consistent with other empirical studies on Makueni [165; 166], interviewees detailed high levels of poverty. The county experiences a harsh semi-arid climate, currently worsening because of anthropogenic climate change [24]. This creates living conditions in which Makueni residents struggle for basic resources: 'we are adopting a modelling of how households can get food security because Makueni is semi-arid and quite a number below poverty-line' (County official 1).

Interviewees expressed that migration patterns have resulted in a gendered division of labour: 'in an African setting, men are more gatherers; they are mostly in the urban centres working for the families and the women around the county are responsible for the households' (County official 2). Historically, men in Makueni migrated into urban centres to work for British colonisers, resulting in women becoming overburdened with productive and non-productive work in the rural county [25; 26]. This resulted in women providing for their families via subsistence farming in a semi-arid region that does not always yield crops. A feminisation of poverty occurred, with a high quantity of female-headed households – a county official said than an

eighth of the households were female headed, although a 2012 survey of Wote (Makueni's largest town) recorded the number of female-headed households at 33% [165].

Young women, nevertheless, are now also migrating to the city. This pursuit of employment opportunities and education represents an expansion in resources available to women. Furthermore, recently there has been a concerted effort by the County Government to create opportunity for employment and sustainable livelihoods: 'in 2015, there was a community question set out by the governor: why are we sending our children to be slaves once self-governance has come? (County official 1).' This is corresponded with the County Government's *Mwolyo Out* programme, which aims at Makueni becoming a county of self-reliant citizens by providing residents resources for development projects whilst allowing community governance of the project, with support from County officials. It is thus evident the County government is trying to rebalance gendered resource distribution through development interventions – of which solar energy promotion is one.

(ii) Immaterial resources:

Women's social status is perceived as historically marginalised in Makueni. Kamba⁷ culture was described as 'patriarchal' on two occasions, and men were consistently described as wielding decision-making power: 'men make decisions when men are there' (County official 1)⁸. This is consistent with Winter *et al.*'s 2018 study that looked at women's empowerment through solar in Kitui, another predominantly Kamba county. Nevertheless, the high number of women and female-headed households within Makueni has also resulted in women making decisions for themselves in the absence of men – representative of personal agency. This is what Ndambuki [26] argues is contradictory about women's agency in Makueni; they exhibit high levels of autonomy through subsistence farming and sustainable livelihood techniques, but are consistently depicted in discourse (used by themselves and government officials) as reliant on others for leadership.

⁷ The dominant ethnic/tribal group in Makueni, at 91.6% (National Cohesion and Integration Commission, 2016).

⁸ All interviewees were Kamba.

Significantly, it was expressed that the county's historically high number of NGOs has resulted in two phenomena: firstly, as NGOs usually focus on women and children, they have enforced a culture of women's participation in decision-making; secondly and contrastingly, this saturation of NGOs and donor organisations means that a culture of dependency has emerged within the county.

(County Official 1): 'That's why Makueni was a fertile ground for the uptake of public participation. It was flooded with non-state actors and that's their approach...and so you find we have a more empowered community. So, here comes a government that now takes up the rest of the space to ensure that people participate.'

(County Official 3): 'The challenge is dependency in this part of the world [...] giving handouts was popular in Makueni.'

Therefore, a nuanced situation is occurring in Makueni; there are processes that undermine the whole county's ability to make decisions on matters that govern their lives, because they are reliant on external support. This reliance has become so ingrained within society that people struggle to act autonomously and capitalise on opportunities provided for them by donors. On the other hand, the failure of historical development projects to engage the community have resulted in the County Government introducing *Mwolyo Out*, which builds on the participatory foundations established by donor schemes and NGOs. *Mwolyo Out* also provides women with social capital, as neither gender is allowed to constitute over two-thirds of a project management committee. Furthermore, the history of third sector actors in the county has reportedly resulted in the successful uptake of the policy of Public Participation, which systematically includes marginalised groups in decision-making processes through targeted group consultation.

Although the gendered inequalities in decision-making are multifaceted in Makueni, the high-level of gender-based violence in the county [167; 168; 169] provides an overt reminder of women's continued subjugation. When women do gain power, it is through targeted consultation

and men's migratory habits – i.e. their absence. There was a consensus throughout interviews that, while women's voices are heard, if men are present the final decision-making authority lies with them.

(B) Agency:

To identify empowerment, women's participation in solar power must reduce inequalities in decision-making and the resource deficit that previously existed in Makueni. Choice is determined by decision-making processes and individual agency.

(i) The Individual:

Solar energy has facilitated income diversification in the face of a harsher climate and lower crop yields resulting from climate change [24] Women have found employment through solar power production and distribution at the level of an individual retailer and by managing a local mini-grid; for example, a women's group sells solar systems to other organised groups (receiving dividends after a certain number of systems are sold). It was expressed that selling solar systems is an emerging women's occupation:

A solar seller, discussing her experiences at a training day hosted by a solar producer, D-light: 'Women were so many – in fact the percentage was like 90% women. Also, the employees, the people who have been employed by D-light company, were women. (solar seller 1).

Aside from providing a source of income for women in Makueni, it was expressed that solar power allows women to safely pursue other entrepreneurial endeavours – interviewees reported more 'women shops' have been established in marketplaces and at road-sides because of the safety granted by electric lighting. Therefore, solar energy is helping women in Makueni meet their basic needs and creating avenues for personal agency.

(ii) The Household:

In households, women's participation in solar energy provides them with increased choice to differing extents. Though interviewees continually expressed that women sought purchase of solar products because they improve domestic living conditions and allow their children to study in the evenings, if there was a conflict of interest in the home, the 'head' of the household had final say. Therefore, women's experience with solar energy at the level of household decision-making is dependent on their executive decision-making capacity within the home:

'The decision that would be agreed is for the husband [...] maybe the wife is using the phone torch in the kitchen, others they don't have a torch phone so they use the fire for lighting. But the husband is the one who is respected because he is the head' (solar seller 1).

On the other hand, interviewees did present a wife's opinion as important (solar power being a domestic issue) and her ideas considered more important than those of unmarried women within the home:

Youth group member 1: 'it depends, who are you – are you engaging your sister or your wife?'

Youth group member 2: 'so yes, that one weights a lot.'

Interviewer: 'so whose voice is more important, your sister or your wife?'

Youth group member 1: 'of course, the married one, because now [she] is a grown up. [...] when you bring them on board in matters of decision-making and her views to be heard, you have to listen because this is a married woman, because you brought a person on board who you know can bring ideas and you know you can support the ideas that she brings. So morally, [between] a person who is not married and a woman who is married, a married women is more respected.'

This is consistent with the experiences of a young, unmarried woman's engagement with solar: 'I can say for example I bought and facilitated all of the wiring of this solar – yes I bought the materials, the cables, I brought the guy to come, but it is my Dad who decided what goes where (youth group member 3).' Significantly, contrary to what some African scholars have argued [135; 136; 137; 138], a lot of weight was placed on women's status as a wife within the community, with single mothers and younger women lacking the respect of their married counterparts. In concurrence with Musau [129] and Mdiso [24] female-headed households reportedly experience stigmatisation in Makueni and require support through women's groups. In terms of agency, however, married women's decisions are often subsumed into those of their husbands, where female household heads experience high levels of autonomy. Furthermore, interviewees expressed that the presence of female household heads in public participation meetings resulted in greater focus on women's issues: 'men make decisions. However, fortunately or unfortunately we have still around an eighth of the population that are women headed. And that gives a balance' (County official 1). Therefore, married women are more supported in terms of resources, but female household heads have more agency as they make decisions concerning solar without consulting a man.

(iii) The community:

At community level, women were perceived as demonstrating high levels of agency through their engagement with solar power. Two County officials expressed that the success of a solar powered Cassava plant (now contributing to the grid through Feed-in-Tariffs), is why the County Government set up a renewable energy department and put pressure on the Kenyan Government to give them more control over matters relating to renewable energy. Previously they could only provide transformers for those who wanted to connect to Kenya Power, but the 2019 Energy Bill has granted municipal powers more say in energy matters [27]. Crucially, the women running the plant acted autonomously in advocating for solar power, receiving international donations and contributions from the County Government. Solar energy is thus used as a vehicle granting further opportunities to women who already have a degree of agency. Through their advocacy of solar energy, these women influence decision-making processes at the county and national level, demonstrating empowerment by combining energy and political action.

(C) Achievements:

(i) Significant choice:

Solar energy deployment improved access to resources in multiple ways. Firstly, the solar technology itself provides multiple benefits to women through lighting and charging capacities. Women reported feeling safer in both public and private spaces because of solar floodlights and solar lanterns: ‘when you light more spaces [...] whether it is public or on your way home, you easily find a way out’ (County official 1).

The technology has also alleviated women’s household duties, aiding in collection of water and fuel for the household. Solar pumps are installed in about 80% of the boreholes in the county (according to a county official), making them far more affordable and reliable compared to those powered by the expensive and unpredictable Kenya Power. Furthermore, solar lighting provides a safer alternative to kerosene or open fires for lighting homes in the evenings, providing a dependable and affordable source of electricity.

The choices granted to Makueni women through their participation in solar are of consequence to their lives, providing income that helps sustain their families, reducing exposure to indoor air pollution (thus improving health), and providing safety from high level gender-based violence. These women make personal decisions concerning energy production to meet their personal energy needs. Solar power thus is moving Makueni’s women up the empowerment spectrum.

(ii) Individual consciousness:

At an individual level, the combination of the Public Participation policy and solar electricity are changing how women perceive their capacities within the community:

‘Every time we engage in group matters, as a youth or as a woman, I feel [...] empowered because I get to understand and learn so much...what are the needs for the community, what I can do to change – it makes me happy, it makes me feel like I am growing as a person’ (youth group member 3, who had sold solar products in the past).

Participatory processes surrounding solar power thus alter individual consciousness. Women expressed more confidence in their abilities after buying or selling solar products and being consulted in decisions concerning solar implementation.

(iii) Collective consciousness:

There are indications that women's participation in solar implementation in Makueni alters wider perceptions of women in the community. Interviewees reported the community trusts the opinions of the solar sellers on what products to buy, and seeks their advice in avoiding counterfeit products – demonstrating that women's opinions are respected in a new capacity.

Set against Kabeer's criteria, for empowerment to have occurred, a wider societal shift in gendered perspectives is required. Ndambuki [26] has argued that a focus on altering social constructions of gender is a Westernised notion overlooking the practical needs of rural Kenyan women. Nevertheless, this rejection of integrating gendered power structures into the analysis of women's experience places the onus to alleviate poverty on individual women – despite the fact that socio-economic marginalisation results from historical power differentials. By understanding women as autonomous individuals resilient in the face of practical burdens, we risk adding to the long list of productive and non-productive work that women already partake in due to social organisation and systemic inequality [128]. As Kenya considers solar energy as falling under domestic purview, it is important to question if this conception is merely an extension of prescriptive gender roles that govern women's lives – is this entrenching gendered differences and adding to women's burdens or opening avenues for women's autonomy?

In Makueni, the policy of Public Participation and an ethos of inclusion (resultant of County Government policies and a history of high NGO deployment) has resulted in inclusive deliberative processes surrounding solar energy deployment, themselves allowing women to dictate their interactions with solar energy. The County Government first sensitises the community to solar products through civil education, then solar providers (in collaboration with the government) approach women's groups to teach them about the technology's benefits:

‘In terms of participation, it is important to first create the civic awareness on the education side, to ensure that there are platforms for providers to engage the community and share with them the importance’ (County official 1).

Women are then given the opportunity to sell as individuals or capitalise on extant public participation frameworks and sell as a group to other organised groups (with the public participation structure effectively functioning as a value chain for solar products). Alternatively, as in the case of Kitonyoni mini-grid, women gain employment and subsequently become automatic members of a cooperative management team. These women act autonomously to improve their lives through energy ownership mechanisms, public participation and civic society. Significantly, solar deployment helps alleviate issues of ‘limited access to and ownership of assets, income-generating opportunities, essential economic services and decision making’, identified as affecting women in Makueni [129, p8]. Hence, these women are no more constrained or burdened by their participation in solar power – indeed, solar energy is perceived as an opportunity for women to make decisions and alleviate the weight of domestic duties and subsistence farming. As empowerment is a spectrum, that gender norms have not been completely reshaped does not undermine the fact that, through their participation in solar energy, women were given meaningful choice that changed public perception and individual consciousness.

6. Energy Democracy in Makueni

We can conclude that processes of empowerment are taking place in Makueni, but there are also overt ways in which the experiences of women's participation with solar power in Makueni evidence a process of energy democracy. Makueni's women make decisions about energy issues that impact their lives and capitalise on municipal political frameworks to meet their energy needs in an inclusionary way, combining bottom-up, renewable energy production with civil society empowerment through public participation and community ownership. Therefore, the process of women's empowerment that occurred in Makueni County mirrored a process of energy democracy.

As well as highlighting synergies between these phenomena, empirical findings in Makueni evidence the shortcomings of current energy democracy theorising. It was recognised within the county that women's and civic empowerment can only be facilitated if attention is given to productions of the self – that is, how social power structures and institutional frameworks influence the individual:

County official 1: 'we teach that the first level of governance is self; be able to give yourself the dignity you deserve and understand your rights.'

In Makueni, renewable deployment, civic education and individual empowerment are understood as inextricably linked (see [203] for similar findings in relation to an energy democracy case study in Thailand). The connection between democratising decision-making and the success of development projects is taught at all levels of the community by the County Government, as it is understood that people engage in sustainable development when feeling included in decision-making and confident in their capacities. Furthermore, it is believed that this change in consciousness is achieved through a decentralisation of political power:

'it's just the politics of development – trying to get people to utilise the locality in politics, to develop themselves and agitate development, cause leaders to be accountable,

look at politicians at the county and national level as servants and not people to live under' (County official 1).

For Makueni residents, devolution is empowering. This directly correlates with conceptualisations of energy democracy that emphasise civic empowerment through municipal governance. Furthermore, interviewees perceive a need for political structures to include those who have been historically excluded from decision-making, to build individual capacities through civil society. This understanding of the relationship between the individual and socio-political structures has the potential to advance conceptualisations of energy democracy. The platforms facilitating solar energy uptake in Makueni empower women because they are filtered through targeted consultation and civic education that teaches the importance of inclusion. Interviewees expressed that men make decisions when they are present; therefore, it is plausible to infer that if women were not separated via self-organised groups (i.e., attention was paid to the creation of social marginalisation) they would have had less clout in decision-making processes about solar (i.e., the process would have been less empowering and less democratic). Therefore, ongoing work to conceptualise and define energy democracy can learn from women's empowerment discourse by incorporating an understanding of gendered power differentials and individual agency into its conceptualisation of the empowered citizen:

'While the status of citizenship spells out the possibilities and constraints that individuals and groups experience as members of a particular society, the practice of citizenship places the question of human agency, including the capacity to accept, to conform, to question or dissent, at the heart of contesting views about citizenship' [57, p216].

As Kabeer and our empirical findings in Makueni highlight, people experience citizenry differently as a result of a given society's political institutions and social structures. Both within and between societies, complex and various experiences of citizenship emerge from social organisation and marginalisation. Energy democracy scholarship is aware of how social power structures exclude certain groups from deliberative processes around energy, power being concentrated within an elite group. Nonetheless, if the democratisation of the energy system aims

for 'equality of political subjects' [118, p28] then it must look at in-group inequality and social make-up of the people it aims to distribute power to, and how individual consciousness relates to politics and energy.

Crucially, if exclusion from decision-making persists for sub-sections of society, democratisation processes are limited. The presence of a disempowered sub-population prevents true democracy because the disempowered lack the ability to make their own significant life choices. Energy democracy theorising (and activism) would benefit from attending to women's empowerment (and empowering other marginalised groups), thereby facilitating a truly just transition.

Conclusion

In Makueni, the policies of public participation and ownership that are promoted by energy democracy theorists are being enhanced by a targeted policy of public participation that redress historical subjugation by consulting marginalised groups separately. A democratisation of the energy system has taken place through public participation that specifically targets marginalised groups and a civic education that is focused on inclusion. The situation in Makueni demonstrates that analysing the empowerment of marginalised groups by the introduction of an energy resource can serve as a means of benchmarking the success of energy democracy. This can ultimately guide the creation of a more democratic energy system, by highlighting the ways in which groups are excluded from the decision-making processes around energy infrastructure and access.

The primary objective of this study was to use empirical data from the Makueni fieldwork to generalise to theory; nevertheless, there are transferable lessons for other contexts in which energy democracy challenges are being handled. Significantly, future energy democracy research would gain more clarity by borrowing from or building on analytical frameworks created by longstanding women's empowerment scholarship (such as Kabeer) to examine the redistribution of benefits resulting from novel energy infrastructure, the extent to which participation in energy decision-making is equitable *within* groups, as well as the wider processes of democratisation. Evaluation of energy democracy in Makueni through feminist epistemologies reveals social processes of marginalisation that have excluded certain groups from energy access and decision-making. If energy democracy practitioners are to achieve system change, it is imperative to analyse the power differentials playing out at the level of the self in the system from which they wish to transition and throughout the processes of democratisation.

Works Cited

1. *Conceptualizing energy democrac*. **Szulecki, K.** (1), 2018, Environmental Politics , Vol. 27, pp. 21-41.
2. *Gender empowerment through women's higher education: Opportunities and possibilities*. **Noreen, G and Khalid, H.** 1, 2012, Journal of Research and Reflections in Education, Vol. 6, pp. 50-60.
3. *Social Capital: Implications for Development Theory, Research, and Policy*. **Woolcock, Michael and Narayan, Deepa.** 2, 2000, The World Bank Research Observer, Vol. 15, pp. 225-249.
4. *Energy democracy: Goals and policy instruments for sociotechnical transitions*, **Matthew J Burke and Stephens, Jennie.** 2017, Energy Research & Social Science, Vol. 33, pp. 35-48.
5. *Understanding carbon lock-in*. **Unruh, Gregory.** 12, 2000, Energy Policy, Vol. 28, pp. 817-830.
6. *Improving technology transfer through national systems of innovation: climate relevant innovation-system builders (CRIBs)*. **Ockwell, D and Byrne, R.** 7, 2016, Climate Policy, Vol. 16, pp. 836-854.
7. **Ockwell, D and Byrne, R.** *Sustainable Energy for All: Innovation, Technology and Pro-Poor Green Transformations*. Abingdon : Routledge, 2016.
8. **De Beer, F. S.** *Community development and beyond: Issues, structure and procedure*. Pretoria : Van Schaik, 1998.
9. **Chambers, R.** *Poverty research: Methodologies, mindsets and multidimensionality*. Sussex : University of Sussex: Institute of Development Studies, 2007.
10. **Dauids, I. T.** *Participatory development in South Africa: A Development Management Perspective*. Pretoria : Van Schaik, 2009.
11. **Mbevi, Abigail Mwend.** Influence of Community Participation on Performance of Development Projects in Makueni county, Kenya. (Masters thesis). [Online] 2016. [Cited: 2 June 2019.] <https://pdfs.semanticscholar.org/f689/83ff21752e76a8ff1a70b7524fb548b236c4.pdf>.
12. *Imagining renewable energy: Towards a Social Energy Systems approach to community renewable energy projects in the Global South*. **Cloke, Jonathan, Mohr, Alison and Brown, Ed.** 1, 2017, Energy Research and Social Science, Vol. 3, pp. 263-272.
13. *Venkata Ramana Participatory rural energy planning in India—a policy context*. **Cynthia-Neudoerffer, R, Malhotra, P and Venkata-Ramana, P.** 5, 2001, Energy Policy, Vol. 29, pp. 271-381.
14. *Off-grid rural electrification experiences from South Asia: status and best practices*. **Palit, D and Chaurey, A.** 3, 2011, Energy for Sustainable Development, Vol. 15, pp. 266-276.
15. **Gallagher, M and Wykes, S.** *Civil Society Participation in the Sustainable Energy for All Initiative: A Survey of Six Countries Practical Action*. Rugby, UK : Hivos, 2014.
16. **Watson, J, et al.** What Are The Major Barriers To Increased Use Of Modern Energy Services Among The World's Poorest People And Are Interventions To Overcome These Effective. [Online] 2012. [Cited: 3 July 2019.] <https://www.environmentalevidence.org/completed-reviews/what-are-the-major-barriers-to-increased-use-of-modern-energy-services-among-the-worlds-poorest-people-and-are-interventions-to-overcome-these-effective>.
17. **Cornell, A and D'arcy, Michelle.** Devolution, Democracy and Development in Kenya. *Swedish International Centre for Local Democracy*. [Online] 2016. [Cited: 2 June 2019.] <https://www.icld.se/static/files/forskningspublikationer/devolution-democracy-and-development-in-kenya-report-5-low.pdf>.
18. **ACTS.** *Baseline Study for the Green and Inclusive Energy Programme in Kenya, Uganda and Tanzania*. Nairobi : ACTS, 2016. Report Submitted by The African Centre for Technology Studies (ACTS) to HIVOS, Netherlands [unpublished].
19. **Okuku, Juma.** *Civil Society and the Democratisation Process in Kenya and Uganda: A Contribution of the Church and NGOs*. Michigan : Michigan State University Library, 2002.
20. **County Government of Makueni.** Makueni County Public Participation in Governance Bill 2014. [Online] 2014. [Cited: 20 May 2019.] <https://makueni.go.ke/acts-and-policies/public-participation-in-governance-bill-2014/>.
21. **Njugunah, Margaret.** Makueni to build 40MW solar plant. [Online] 2016. [Cited: 23 May 2019.] <https://www.capitalfm.co.ke/business/2016/05/makueni-build-40mw-solar-plant-increase-irrigated-land/>.

22. *How does energy matter? Rural electrification, entrepreneurship, and community development in Kenya.* **Vernet, Antoine, et al.** 1, 2019, *Energy Policy*, Vol. 126, pp. 88-98.
23. *Feminism Spoken Here: Epistemologies for Interdisciplinary Development Research.* **Jackson, Cecile.** 3, 2006, *Development and Change*, Vol. 37, pp. 525-547.
24. **Ndiso, Lennah Syowasya.** *Effects of Income diversification strategies on female headed household livelihoods in Ilima division, Makeni county, Kenya* (. Nairobi : University of Nairobi, 2016.
25. **Khasiani, Shanyisa Anota.** Enhancing Women's Participation in Governance: the case of Kakamega and Makeni Districts, Kenya. [ed.] Eva Rathgeber and Edith Ofwona Adera. *Gender and the Information Revolution in Africa.* Ottawa : International Development Research Centre, 2000, pp. 215-238.
26. **Ndambuki, Jacinta.** *Discursive representation of women's interests and needs in Makeni District, Kenya.* Johannesburg : University of Witwatersrand, 2010.
27. **Kenya Power.** The Energy Act No.1 of 2019. [Online] 2019. [Cited: 5 July 2019.] https://kplc.co.ke/img/full/o8wccHsFPaZ3_ENERGY%20ACT%202019.pdf.
28. *A review of sustainable energy access and technologies for healthcare facilities in the Global South.* **Franco, Andrea, et al.** 2018, *Sustainable Energy Technologies and Assessments*, Vol. 22, pp. 92-105.
29. *Co-benefits of mitigating global greenhouse gas emissions for future air quality and human health.* **West, Jason, et al.** 2013, *Nature Climate Change* volume, Vol. 3, pp. 885-889.
30. *Household energy, indoor air pollution and child respiratory health in South Africa.* **Barnes, Brendon, et al.** 2009, *Journal of Energy in Southern Africa*, Vol. 20, pp. 21- 47.
31. *Indoor air pollution from biomass combustion and acute respiratory infections in Kenya: an exposure-response study.* **Ezzati, Majid and Kammen, Daniel.** 9282, 2001, *The Lancet*, Vol. 358, pp. 619-625.
32. **Anubha Agarwal 1 , Kipruto Kirwa 2 , Melissa N. Eliot 3 , Fawaz Alenezi 1 , Diana Wellenius and Bloomfield, Gerald S.**
33. *Household Air Pollution Is Associated with Altered Cardiac Function among Women in Kenya.* **Agarwal, Anubha, et al.** 7, 2018, *American Journal of Respiratory and Critical Care Medicine*, Vol. 197.
34. *Assessing the impact of renewable energy deployment on local sustainability: Towards a theoretical framework.* **Rio, Pablo del and Burguillo, Mercedes.** 2008, *Renewable and Sustainable Energy Reviews*, Vol. 12, pp. 1325-1344.
35. *Decoupling energy use and economic growth: Counter evidence from structural effects and embodied energy in trade.* **Moreau, Vincent and Vuille, Francios.** 2018, *Applied Energy*, Vol. 215, pp. 54-62.
36. **Gordon, Adele.** *Facilitating education in rural areas of Cape Town* : Energy and Development Research Centre, 1997.
37. *An Anthropology of Electricity from the Global South.* **Gupta, Akhil.** 4, 2015, *Cultural Anthropology*, Vol. 30, pp. 555-568.
38. **Angel, James.** *Discussions and outcomes from an international workshop (11-12 February).* Amsterdam : Transnational Institute in partnership with Global Justice Now, 2016.
39. **Jenkins, L (2019).** *Energy Justice, Energy Democracy, and Sustainability: Normative Approaches to the Consumer Ownership of Renewables.* . [ed.] J. Lovitzsch. *Energy Transition: Financing Consumer Co-Ownership in Renewables.* Cambridge : Springer International Publishing., 2019, pp. 79 – 97.
40. *Energy Democracy: Redistributing Power to the People through Renewable Transformation.* **Stephens, J. C.** 2, 2019, *Environment Science and Policy for Sustainable Development*, Vol. 61, pp. 4-13.
41. *What is energy democracy? Connecting social science energy research and political theory.* **Van Veelen, B and Van Der Horst, D.** 2018, *Energy Research and Social Science*, Vol. 46, pp. 19-28.
42. *Energy, Agriculture, Patriarchy and Ecocide.* **Lough, Thomas S.** 2, 1999, *Human Ecology Review*, Vol. 6, pp. 100-111.
43. *Petroleum Patriarchy? A Response to Ross.* **Norris, Pippa.** 4, 2009, *Politics and Gender* , Vol. 5, pp. pp553-360.
44. *What is energy democracy? Connecting social science energy research and political theory.* **Van Veelen, B and Van Der Horst, D.** 2018, *Energy Research and Social Science*, Vol. 46, pp. 19-28.
45. **Paxton, Pamela, Hughers, Melanie and Green, Jennifer.** *The International Women's Movement and Women's Political Representation, 1893–2003.* Columbus : Sage publications, 2006.

46. **Buystydzinski, Jill and Sekhon, Joti.** *Democratization and Women's Grassroots Movements.* Bloomington : Indiana University Press , 1999.
47. **Swai, Elinami Veraeli.** *Beyond Women's Empowerment in Africa.* New York, NYC : Palgrave Macmillan/ St. Martins Press , 2010.
48. **UNDP.** *Human Development Report.* 1995.
49. **Sen, G and Grown, SC.** *Development, crises and alternative visions .* London : Earthscan, 1988.
50. **Rowlands, J.** *Questioning Empowerment.* Oxford : Oxfam publications, 1997.
51. **Batliwala, S.** *Empowerment of women in South Asia: Concepts and Practices.* New Dehli : FAO, 1993.
52. **Kabeer, N.** *Reversed realities. Gender hierarchies in development.* London : Verso, 1994.
53. **Agarwal, B.** *A field of one's own. Gender and land rights in South Asia.* Cambridge : Cambridge University Press , 1994.
54. *Gender planning in the Third World: meeting practical and strategic gender needs.* **Moser, C.** 1, 1989, *World Development*, Vol. 17, pp. 1799-1825.
55. **Kabeer, Naila.** *Women's economic empowerment and inclusive growth: labour markets and enterprise development.* Discussion Paper 29/12. s.l. : SOAS, 2012.
56. *Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment.* **Kabeer, Naila.** 1999, *Development and Change* , Vol. 30, pp. 435-464.
57. *Empowerment, Citizenship and Gender Justice: A Contribution to Locally Grounded Theories of Change in Women's Lives.* **Kabeer, Naila.** 3, 2012, *Ethics and Social Welfare*, Vol. 6, pp. 216-232.
58. **Hogarth, Ryan and May, Llimi Granoff.** *Working Paper 418: Speaking truth to power, why energy distribution, more than generation, is Africa's poverty reduction challenge.* London : ODI (Overseas Development Institute), 2015.
59. **Wilson, E., Wood, R.G. and Garside, B.** *Sustainable Energy for All? Linking Poor Communities to Modern Energy Services.* London : s.n., 2012.
60. *Solar energy for all? Understanding the successes and shortfalls through a critical comparative assessment of Bangladesh, Brazil, India, Mozambique, Sri Lanka and South Africa.* **Kumar, A, Luque-Ayala, A and Ferdous, R.** March, 2019, *Energy Research & Social Science*, Vol. 48, pp. 166-176.
61. *New partnerships and business models for facilitating energy access.* **Chaureya, Akanksha, et al.** 1, 2012, *Energy Policy*, Vol. 47, pp. 48-55.
62. *Solar Powered Electricity Access: Implications for women's empowerment in rural Kenya .* **Winther, Tanja, Ulsrud, Kirsten and Sain, Anjali.** 2018, *Energy Research & Social Science*, Vol. 44, pp. 61-74.
63. *Vulnerability to hunger in Africa: a climate change perspective. .* **Downing, T. E.** 5, 1991, *Global environmental change*, Vol. 1, pp. 365-380.
64. *Neoliberal energy transitions in the South: Kenyan experiences.* **Newell, P.** 1, 2016, *Geoforum*, Vol. 72, pp. 39-48.
65. **The Government of Kenya.** *Constitution of Kenya.* [Online] 2010. [Cited: 20 March 2019.] <file:///C:/Users/s1435168/Downloads/ConstitutionofKenya%202010.pdf>.
66. **Govindan, M and Palit, D.** *Gender in energy policy making in India, Nepal and Kenya.* *Energy Ethics without Borders.* Eindhoven : Eindhoven University of Technology Press, 2019.
67. *Grounded Theory methodology.* **Strauss, A and Corbin, J.** 1994, *Handbook of Qualitative Research*, Vol. 17, pp. 273-85.
68. *A Common Language of Gender.* **Beckwith, Karen.** 1, 2005, *Politics and Gender*, Vol. 1, pp. 128- 137.
69. *Toward a comparative politics of gender research in which women matter."* **Tripp, Aili Mari.** 1, 2010, *Perspectives on Politics*, Vol. 8, pp. 191-197.
70. **Lorber, Judith.** *Paradoxes of gender.* s.l. : Yale University Press, 1994.
71. **Young, Iris Marion.** *Gender as seriality: Thinking about women as a social collective.* *Gender and Justice.* s.l. : Routledge, 2017, pp. 2-28.
72. *Taking action to improve women's health through gender equality and women's empowerment.* **Grown, C, Gupta, G.R and Pande, R.** 9458, 2005, *The lancet*, Vol. 365, pp. 541-543.
73. *The influence of women's empowerment on maternal health care utilization: Evidence from Albania.* **Sado, L, Spaho, A and Hotchkiss, D.R.** 2014, *Social Science & Medicine*, Vol. 114, pp. 169-77.
74. *Women's empowerment: the insights of Wangari Maathai .* **Gail, M. Presbey.** 3, 2013, *Journal of Global Ethics*, Vol. 9, pp. 277-292.

75. *A review of biomass energy dependency in Tanzania.* **Felix, M and Gheewala, S.H.,** 1, 2011, *Energy procedia*, Vol. 9, pp. 338-343.
76. *Renewable energy in Kenya: Resource potential and status of exploitation.* **Kiplagat, J.K, Wang, R.Z and Li, T.X.** 6, 2011, *Renewable and Sustainable Energy Reviews*, Vol. 15, pp. 2960-2973.
77. *The energy-enterprise-gender nexus: lessons from the multifunctional platform (MFP) in Mali.* **Sovacool, B.K., et al.** 1, 2013, *Renewable Energy*, Vol. 50, pp. 115-125.
78. *Appropriate gender-analysis tools for unpacking the gender-energy-poverty-nexus.* **Clancy, J., et al.** 2, 2007, *Gender and Development*, Vol. 15, pp. 241-257.
79. *Solar Powered Electricity Access: Implications for women's empowerment in rural Kenya.* **Winther, T, Ulstrup, K and Saini, A.** 1, 2018, *Energy Research & Social Science*, Vol. 44, pp. 61-74.
80. *Women's empowerment through electricity access: scoping study and proposal for a framework of analysis.* **Winther, T, et al.** 3, 2017, *Journal of Development Effectiveness*, Vol. 9, pp. 389-417.
81. *Climate change vulnerability, impacts, and adaptation: Why does gender matter? .* **Denton, F.** 2, 2002, *Gender & Development*, Vol. 10, pp. 10-20.
82. *Vulnerability of women to climate change in arid and semi-arid regions: The case of India and South Asia.* **Yadav, S.S and Lal, R.** 1, 2018, *Journal of Arid Environments*, Vol. 149, pp. 4-17.
83. *A longitudinal study of electricity consumption growth in Kenya.* **Fobi, S, et al.** 1, 2018, *Energy Policy*, Vol. 123, pp. 569-578.
84. **Dossou, T. M.** *The impact of China's one belt one road Initiative in Africa: the Evidence from Kenya.* Mpra.ub.uni-muenchen.de. [Online] 2018. https://mpira.ub.uni-muenchen.de/90460/10/MPRA_paper_90460.pdf.
85. **BBC.** *Kenya halts Lamu coal power project at World Heritage Site.* [Online] 2019. [Cited: 26 June 2019.] <https://www.bbc.co.uk/news/world-africa-48771519>.
86. **Human Rights Watch.** *World Report 2015: Kenya.* [Online] 2015. [Cited: 20 May 2019.] <https://www.hrw.org/world-report/2015/country-chapters/kenya>.
87. **Oduyoya, M. A.** *Feminist Theology in an African Perspective.* [book auth.] Giberellini R. *Paths of African Theology.* Marynoll : Obis Books., 1994.
88. —. *Daughters of Anowa: African Women & Patriarchy.* . Maryknoll : Orbis Books. , 1995.
89. —. *Breads and Strands: Reflections of African Women on Christianity in Africa.* Cumbria : Editions Cle and Regum Africa. , 2002.
90. **Njoroge, N. J.** *Let's Celebrate the Power of Naming.* [book auth.] Apavo I. Phiti and S. Nadar. *African Women, Religion, and Health: Essays in Honor of Mery Amba Ewudzjiva Oduyoye.* Maryknoll, New York : Orbis Books , 2006.
91. **Oduyoye, M.A.** *Women and ritual in Africa.* [ed.] Mery A Oduyoye and Rachel A. Kanyoro. *Will to Arise: Women, Tradition and the Church in Africa.* Pietermaritzburg : Wipf and Stock, 2006.
92. **Ayallo, Irene Akinyi.** *Public policy dialogue for socially-inclusive public policy making processes in Kenya: the role of the Anglican church of Kenya.* [Online] <https://openrepository.aut.ac.nz/handle/10292/4735>.
93. —. *Public policy dialogue for socially-inclusive public policy making processes in Kenya: the role of the Anglican church of Kenya.* Auckland University of Technology Open These and Dissertations library. [Online] 2012. [Cited: 1 June 2019.] <https://openrepository.aut.ac.nz/handle/10292/4735>.
94. **Owuor, E.** *Women and political inclusion in Kenya: A historical overview, 1963–2016.* *Gender Equality and Political Processes in Kenya.* Nairobi : Strathmore University Press, 2016, pp. 7-38.
95. **County Government of Makueni.** *Annual Public Participation Report 2017/2018.* [Online] 20 November 2018. [Cited: 3 June 2019.] <https://makueni.go.ke/reports/annual-public-participation-report-2017-2018/>.
96. **Wanjiru, Rose.** *Implementation of the Makueni County Participatory Budgeting Framework (FY 2015-2016).* [Online] 6 July 2017. [Cited: 20 May 2019.] <https://participedia.net/case/4962>.
97. **Institute of Economic Affairs.** *Review of Status of Public Participation, and County information Dissemination Frameworks: a case study of Isiolo Kisumu, Makueni and Turkana counties.* . [Online] 01 January 2015. [Cited: 16 June 2010.] <https://www.africaportal.org/publications/review-of-status-of-public-participation-and-county-information-dissemination-frameworks-a-case-study-of-isiolo-kisumu-makueni-and-turkana-counties/>.
98. **Government of Makueni.** *Makueni to Partner with GIZ in Green Energy Development.* [Online] 26 January 2018. [Cited: 3 May 2019.] <https://makueni.go.ke/news/makueni-to-partner-with-giz-in-green-energy-development/>.

99. —. *DG leads negotiations with Israeli global solar firm* . [Online] 24 July 2018. [Cited: 6 May 2019.] <https://makueni.go.ke/news/dg-leads-negotiations-with-israeli-global-solar-firm/> .
100. —. *Makueni County Integrated Development Plan*. [Online] 2018. [Cited: May 5 2019.] https://roggkenya.org/wp-content/uploads/Makueni_CIDP_2018-2022_County-Integrated-Development-Plan-1.pdf.
101. **Kenya Climate Innovation Centre**. *Sector Mapping and Market Assessment on the Improved Cookstoves (ICS) Sector in Kenya*. [Online] 2016. [Cited: 8 May 2019.] [https://www.kenyacic.org/sites/default/files/publications/KCIC%20ICS-3.pdf?fbclid=IwAR3\]drIBsOxGIVToPMiDyNdZB3Q74P0zKTHNI_e5TiFlk08b-w6ngXexbI](https://www.kenyacic.org/sites/default/files/publications/KCIC%20ICS-3.pdf?fbclid=IwAR3]drIBsOxGIVToPMiDyNdZB3Q74P0zKTHNI_e5TiFlk08b-w6ngXexbI).
102. *Slow-violence, Gender and the Environmentalism of the Poor*. **Nixon, Rob**. 2/1, 2006/7, *Journal of Commonwealth and Postcolonial Studies* , Vol. 13/ 14, pp. 14-37.
103. **Government of Makueni**. *Makueni Contemplated International Justice Over Two KPC Oil Spills*. [Online] 2019. [Cited: 15 May 2019.] <https://makueni.go.ke/news/makueni-contemplates-international-justice-over-two-kpc-oil-spills/>.
104. **Byrne, R.P.** *Learning Drivers: Rural Electrification Regime Building in Kenya and Tanzania (Phd Thesis)*. Brighton : University of Sussex, 2011.
105. **Byrne, R, et al.** *Sustainable energy for whom? Governing pro-poor, low carbon pathways to development: lessons from solar PV in Kenya*. Brighton : STEPS Centre, 2014.
106. *Diffusion on the ground: Rethinking the logic of scale and access in off-grid solar*. **Turner, B**. 2019, *Energy Research and Social Science*, Vol. 50, pp. 1-6.
107. *An Anthropology of Electricity in the Global South*. **Gupta, A**. 4, 2015, *Cultural Anthropology*, Vol. 30, pp. 555-568.
108. *The 100th object: Solar lighting technology and humanitarian goods*. **Cross, Jamie**. 4, 2013, *Journal of Material Culture*, Vol. 18, pp. 367-387.
109. **Winther, Tanja**. *The Impact of Electricity: Development, Desires and Dilemmas*. New York : Berghahn Books, 2008.
110. *Lock-in and change: distributed generation in Denmark in a long-term perspective*. **Vleuten, Van der and Raven**. 18, 2006, *Energy Policy*, Vol. 43, pp. 3739-3748.
111. *Energy justice: conceptual insights and practical applications*. **Sovacool, B. K and Dworkin, M. H**. 1, 2015, *Applied Energy*, Vol. 142, pp. 435-444.
112. **Gardiner, S and Thompson, A**. *The Oxford Handbook of Environmental Ethics*. New York : Oxford University Press, 2017.
113. **Hayward, T**. *The Case for a Human Right to an Adequate Constitutional Environmental Rights*. Oxford : Oxford University Press, 2004.
114. **Baatz, C. and Ott., K**. *Why Aggressive Mitigation Must Be Part of Any Pathway to Climate Justice*. [ed.] Preston Christopher J. *Climate*. s.l. : Rowman & Littlefield., 2016.
115. *Global Environmental and International Equality*. **Shue, H**. 3, 1999, *International Affairs* , Vol. 75, pp. 531-545.
116. **Shue, H**. *Mitigation: First Imperative of Environmental Ethics*. [ed.] S Gardiner and A Thompson. *The Oxford Handbook of Environmental Ethics*. New York : Oxford University Press, 2017.
117. **Schlosberg, D**. *Justice to Nature 2: Incorporating Recognition, Capabilities, and Participation*. New York : Oxford University Press, 2007.
118. *Conceptualizing energy democracy*. **Szulecki, K**. 21-41, 2018, *Environmental Politics*, Vol. 1, p. 27.
119. *Africa and the export of China's clean energy revolution*. **Shen, W. and Power, M**. 3, 2017, *Third world quarterly*, Vol. 38, pp. 678-679.
120. *Low carbon innovation in China: from overlooked opportunities and challenges to transitions in power relations and practices* . **Tyfield, D, Ely, A and Geall, S**. 4, 2015, *Sustainable Development*, Vol. 23, pp. 206-216.
121. *Provision of electricity to African households: the importance of democracy and institutional quality*. **Ahlborg, H., et al.** 2015, *Energy Policy*, Vol. 87, pp. 125-135.
122. *Neoliberal energy transitions in the South: Kenyan experiences* . **P. Newell, J. Phillips**. 2016, *Geoforum*, Vol. 74, pp. 39-48.
123. *The political economy of the 'just transition'*. **Newell, P and Mulvancy, D**. 2, 2013, *The Geographical Journal* , Vol. 179, pp. 132-140.
124. *Energy Democracy: Mapping the debate on energy alternatives*. **Becker, S and Naumann, M**. 8, 2017, *Geography Compass*, Vol. 11, pp. 1-13.
125. **Lohmann, L and Hildyard, N**. *Energy, Work and Finance*. Dorset : The Corner House, 2014.

126. *Women's empowerment through electricity access: scoping*. **Winther, Tanja, et al.** 3, 2017, *Journal of Development Effectiveness*, Vol. 9, pp. 389-417.
127. **Cecelski, E.** *Rethinking Gender and Energy: Old and New Directions*. [prod.] ENERGIA/EASE Discussion Paper. Leusden, The Netherlands : ENERGIA, 2004.
128. **Sultana, Farhana.** *Reflexivity, positionality and participatory ethics: Negotiating fieldwork dilemmas in international research*. s.l. : ACME, 2007. journal compilation.
129. **Musau, Jackson Masua.** *The Demographic, socio-economic and cultural factors influencing non-marital fertility in makueni district, Kenya*. Nairobi : Kenyatta University, 2010.
130. *The impact of U.S.A. and E.U. on environmental and energy*. **Antal, A.** 2015, *On-Line Journal Modelling the New Europe*, Vol. 17, pp. 13-27.
131. **Dankelman, Irene.** *Gender and Climate Change: An Introduction* . London : Routledge, 2010.
132. **Sultana, F.** *Gender and Water in a Changing Climate: Challenges and Prospects*. [book auth.] C. Gioli, G. Cremades, R. and Myrntinen, H Fröblich. *Water Security Across the Gender Divide*. The Netherlands : Springer, 2018, pp. 17-33.
133. **Maathai, Wangari.** *The Challenge for Africa*. New York : Anchor/ Random House., 2009.
134. **Charmaz, K and Belgrave, L.** *Grounded theory*. *The SAGE Handbook of Interview Research: The Complexity of the Craft*. s.l. : SAGE, 2012.
135. **Oyewumi, Oyeronke.** *Introduction to Feminism. Sisterhood and Other Foreign Relations. Africa Women and Feminism: Reflecting on the Politics of Sisterhood*. Trenton, NJ : Africa World Press, 2003, pp. 1-24.
136. —. *The White Woman's Burden: African Women in Western Feminist Discourse. Africa Women and Feminism: Reflecting on the Politics of Sisterhood*. Trenton, NJ : Africa World Press, 2003, pp. 25-44.
137. **Okme, Mojuabaolu Oluufunke.** *What Women, Whose Development?" A critical analysis of Reformist Evangelism on African Women*. [ed.] Oyeronke Oyewumi. *Africa Women and Feminism: Reflecting on the Politics of Sisterhood*. Trenton, NJ : Africa World Press. , 2003, pp. 45-66.
138. **Kolawole, Mary.** *Re-conceptualising African Gender Theory: Feminism, Womanism and the Arere Metaphor*. [ed.] Signe Arnfred. *Rethinking Sexualities of Africa*. Uppsala : Nordic Africa Institute, 2004, pp. 251-268.
139. **Musalia, John.** *Determinants of Women's Autonomy in Kenya*. s.l. : Bowling Green State University Press, 2013. Paper presented at Kenyan Scholars and Studies Association 6th annual conference, "Kenya at 50: Lessons for the Future,".
140. *Women's Empowerment: the insights of Wangari Maathai*. **Gail, Presbey.** 3, 2013, *Journal of Global Ethics*, Vol. 9, pp. 277-292.
141. **Maathai, Wangari.** *The Challenge for Africa*. New York, NY : Anchor/ Random House, 2009.
142. *Peace Profile: Wangari Maathai and the Green Belt Movement*. **Scott, Keturah.** 2, 2013, *Peace Review*, Vol. 25, pp. 299-306.
143. *Assessing Kenya's Cooperative Model of Devolution: a situation-specific analysis* . **Gathii, James Thuo and Otieno, Harrison Mbori.** 1, 2018, *Federal Law Review*, Vol. 46, pp. 596-613.
144. **Wesangula, Daniel.** *Kibwana: Why Makueni is best example that devolution works*. [Online] 2018. [Cited: 1 June 2019.] <https://www.standardmedia.co.ke/article/2001267429/kibwana-why-makueni-is-best-example-that-devolution-works>.
145. **Kenya National Bureau of Statistics.** *Exploring Kenya's Inequalities*. [Online] 2013. [Cited: 3 June 2019.] <file:///Users/paulinmaceven/Downloads/Makueni%20County.pdf>.
146. —. *The 2009 Kenya Population and Housing Census*. [Online] 2009. [Cited: 2 June 2019.] <https://s3-eu-west-1.amazonaws.com/s3.amazonaws.com/sourceafrica.net/documents/21195/Census-2009.pdf>.
147. **City Population.** *Makueni County, Kenya*. [Online] 2009. [Cited: 2 June 2019.] <https://www.citypopulation.de/php/kenya-admin.php?adm2id=17>.
148. **Population Action International** . *Population Dynamics, Environment, and Sustainable Development in Makueni County*. [Online] 2015. [Cited: 2 June 2019.] https://pai.org/wp-content/uploads/2014/07/PAI_Makueni.pdf.
149. **Omolo, Annette, Macphail, Bruce and Wanjiru, Rose.** *Inclusive and Effective Citizen Engagement: Participatory Budgeting - Makueni and West Pokot Counties*. ELibrary. [Online] January 2018. [Cited: 3 June 2019.] <https://elibrary.worldbank.org/doi/abs/10.1596/29620>.
150. *Buzzwords at play: gender, education, and political participation in Kenya*. **Foulds, K.** 6, 2014, *Gender and Education*, Vol. 26, pp. 653-671.

151. *Gender equality and women's empowerment: A critical analysis of the third millennium development goal*. **Kabeer, N.** 1, 2005, *Gender & Development*, Vol. 13, pp. 13-24.
152. *A review of major obstacles to women's participation in higher education in Kenya*. **Sifuna, D. N.** 1, 2006, *Research in Post-Compulsory Education*, Vol. 11, pp. 85-105.
153. **NDI**. *Record Number of Women Elected in Kenya's 2017 General Elections, But Women's Representation Remains Low*. [Online] 2018. [Cited: 20 June 2019.] <https://www.ndi.org/our-stories/record-number-women-elected-kenya-s-2017-general-elections-women-s-representation>.
154. **Biegon, J.** *Gender and Political Processes in Kenya*. Nairobi : Strathmore University, 2016.
155. **Kameri-Mbote, P.** *The quest for equal gender representation in Kenya's Parliament: Past and present challenges*. [ed.] J. Biegon. *Gender and Political Processes in Kenya*. Nairobi : Strathmore University, 2016, pp. 39-66.
156. *A Puppet on a String: The Manipulation and Nationalization of the Female Body in the "Female Circumcision Crisis" of Colonial Kenya*. **Boulanger, S.** 6, 2008, *Wagadu: a Journal of Transnational Women's and Gender Studies*, Vol. 59.
157. *IT education and workforce participation: A new era for women in Kenya?*. **Mbarika, V. W., Payton, F. C., Kvasny, L., & Amadi, A.** 1, 2007, *The Information Society*, Vol. 23, pp. 1-18.
158. **Owuor, E.** *Women and political inclusion in Kenya: A historical overview, 1963-2016*. [ed.] J. Biegon. *Gender and Political Processes in Kenya*. Nairobi : Strathmore University, 2016, pp. 7-38.
159. **Sivi-Njonjo, K.** *The path towards inclusive democracy in Kenya*. [ed.] J. Biegon. *Gender and Political Processes in Kenya*. Nairobi : Strathmore University, 2016, pp. 67-90.
160. *Unequal access, unequal participation: some spatial and socio-economic dimensions of the gender gap in education in Africa with special reference to Ghana, Zimbabwe and Kenya*. **Shabaya, J and Konadu-Agyemang, K.** 4, 2004, *Compare*, Vol. 34, pp. 395-424.
161. *Justice and politics in energy access for education, livelihoods and health: How socio-cultural processes mediate the winners and losers*. **Kumar, A.** 1, 2017, *Energy Research & Social Science*, Vol. 40, pp. 3-13.
162. *Beyond technical smartness: Rethinking the development and implementation of sociotechnical smart grids in India*. **Kumar, A.** 1, 2019, *Energy Research & Social Science*, Vol. 49, pp. 158-168.
163. *Solar energy for all? Understanding the successes and shortfalls through a critical comparative assessment of Bangladesh, Brazil, India, Mozambique, Sri Lanka and South Africa*. **Kumar, A, Ferdous, R and Luque-Ayala, A.** (March), 2019, *Energy Research & Social Science*, Vol. 48, pp. 166-176.
164. **Standal, K.** *Giving Light and Hope in Rural Afghanistan: Enlightening Women's Lives with Solar Energy*. [prod.] Master's Thesis. Oslo : University of Oslo, 2008.
165. **Mwangangi, M, Mutie, M and Mango, J.** *Summary of Baseline Household Survey Results: Makueni, Kenya*. Copenhagen : CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), 2012.
166. **Ngila, Wanza Ruciah.** *Poverty Reduction Strategies: an evaluation of Kathonzweli sub-county in Makueni County, Eastern Kenya*. Nairobi : University of Nairobi , 2014.
167. **Kasyoka, Lennah Asami.** *Barriers Women Survivors of Gender-based Violence Experience in Seeking Legal Services in Makueni County, Kenya*. Nairobi : University of Nairobi, 2018.
168. **Government of Makueni.** *Makueni inks a deal with Equality Now Africa on Gender Violence Response*. [Online] 13 June 2019. [Cited: 25 June 2019.] <https://makueni.go.ke/departments/gender/makueni-inks-a-deal-with-equality-now-africa-on-gender-violence-response/>.
169. —. *Makueni, GVRC hold sensitization fora to address Gender Based Violence in the county*. [Online] 25 February 2019. [Cited: 20 June 2019.] <https://makueni.go.ke/news/makueni-gvrc-hold-sensitization-foras-to-address-gender-based-violence-in-the-county/>.
170. *Facing up to the democratic recession*. **Diamond, Larry.** 1, 2015, *Journal of Democracy*, Vol. 26, pp. 141-155.
171. **Mattes, Robert and Bratton, Michael.** *Do Africans still want democracy?* [Online] November 2016. [Cited: 28 July 2019.] https://afrobarometer.org/sites/default/files/publications/Policy%20papers/ab_r6_policypaper036_do_africans_want_democracy.pdf.
172. **Fjelde, Hanne and Höglund, Kristine.** *Ethnic Politics and Elite Competition: the roots of electoral violence in Kenya. Violence in African Elections: between democracy and big man politics*. Uppsala : Nordic Africa Institute, 2018, pp. 1-46.
173. *The legacy of the white highlands: Land rights, ethnicity and the post-2007 election violence in Kenya*. **Kanyinga, Karuti.** 3, 2009, *Journal of Contemporary African Studies*, Vol. 27, pp. 325-344.

174. **Kenny, C.** *'Women Are Not Ready to [Vote for] Their Own': Remaking Democracy, Making Citizens After the 2007 Post-Election Violence in Kenya.* [ed.] R Shackel and L Fiske. *Rethinking Transitional Gender Justice. Gender, Development and Social Change.* Cambridge : Palgrave Macmillan, 2018, pp. 273-294.
175. **Baldwin, Kate.** *The Paradox of Traditional Chiefs in Democratic Africa.* New York : Cambridge University Press, 2016.
176. *Energy democracy: Mapping the debate on energy alternatives.* **Becker, Sören and Naumann, Matthias.** 8, 2017, *Geography Compass*, Vol. 11.
177. **UN.** *Nuclear Energy Could Hold Key to Sustainable Development Gains, Delegates Tell General Assembly, as It Considers international Atomic Energy Agency Report.* United Nations: Meetings Coverage and Press Releases. [Online] 10 November 2017. [Cited: 27 July 2019.] <https://www.un.org/press/en/2017/ga11972.doc.htm>.
178. **Schneider, Mycle.** *World Nuclear Industry Status as of January 1 2018.* [Online] 9 January 2018. [Cited: 22 July 2019.] <https://www.worldnuclearreport.org/World-Nuclear-Industry-Status-as-of-1-January-2018.html>.
179. **Winkler, Hartmut.** *Why nuclear power for African countries doesn't make sense.* *The Conversation.* [Online] 15 May 2018. [Cited: 23 July 2019.] <https://theconversation.com/why-nuclear-power-for-african-countries-doesnt-make-sense-96031>.
180. **Cannon, Brendon.** *Why Kenya's push for nuclear power rests on false or fanciful premises.* [Online] 19 December 2017. [Cited: 18 July 2019.] <http://theconversation.com/why-kenyas-push-for-nuclear-power-rests-on-false-or-fanciful-premises-89313>.
181. **SE4ALL.** *Sustainable Energy for All Annual Report 2018.* [Online] 5 June 2019. [Cited: 22 July 2019.] <https://www.seforall.org/publications/sustainable-energy-for-all-annual-report-2018>.
182. **SDG Knowledge Platform.** *Sustainable Development Goal 13.* [Online] 2019. [Cited: 25 July 2019.] <https://sustainabledevelopment.un.org/sdg13>.
183. *Energy for Sustainable Development: Key Issues and Challenges.* **Kaygusuz, K.** 1, 2007, *Energy Sources, Part B: Economics, Planning, and Policy*, Vol. 2, pp. 73-83.
184. *Persistent women and environment linkages in climate change and sustainable development agendas.* **Resurreccion, Bernadette.** 1, 2013, *Women's Studies International Forum*, Vol. 40, pp. 33-43.
185. **SE4ALL.** *2019 Tracking SDG 7: The energy progress report .* [Online] 2019. [Cited: 1 June 2019.] https://www.seforall.org/sites/default/files/2019-05/TrackingSDG7_report-2019.pdf.
186. **Eade, Deborah.** *Capacity-building: an approach to people-centred development.* Oxford : Oxfam Publishing, 1997.
187. **Tanui, Carolyn.** *Kenya's Mobile Phone Penetration Surpasses 100% Mark.* [Online] 29 December 2018. [Cited: 1 June 2019.] <https://kenyanwallstreet.com/kenyas-mobile-phone-penetration-surpasses-100-mark/>.
188. **Maathai, Wangari.** *Wangari Maathai - Nobel Lecture.* [Online] 10 December 2004. [Cited: 1 May 2019.] <https://www.nobelprize.org/prizes/peace/2004/maathai/26050-wangari-maathai-nobel-lecture-2004/>.
189. **National Cohesion and Integration Commission .** *Ethnic and Diversity Audit of the County Public Service.* [Online] 2016. [Cited: 22 June 2019.] <https://www.cohesion.or.ke/images/docs/Ethnic-and-Diversity-Audit-of-the-County-Public-Service-2016.pdf>.
190. *What is Youth Participation?* **Checkoway, B.** 2, 2011, *Children and Youth services Review*, Vol. 33, pp. 340-345.
191. **Mohanty, C.,.** *Feminism without borders: Decolonizing theory, practicing solidarity.* Durham : Duke University Press, 2003.
192. **Pickering, R.** *Durkeim's Sociology of Religion: Themes and Theories.* Cambridge : James Clarke & Co., 2009.
193. **Maathai, Wangari.** *Replenishing the Earth: Spiritual Values for Healing Ourselves and the World.* New York : Doubleday Religion, 2010.
194. *Contributions of individual countries' emissions to climate change and their uncertainty.* **Hohne, Niklas, et al.** 3, 2011, *Climatic Change*, Vol. 106, pp. 359-391.
195. *Thrifty, green or frugal: Reflections on sustainable consumption in a changing economic climate.* **Evans, David.** 5, 2011, *Geoforum*, Vol. 42, pp. 550-557.
196. *Escaping Carbon Lock-in.* **Uhruh, Gregory.** 2002, *Energy Policy*, pp. 317-325.
197. *What is energy democracy? Connecting social science energy research and political theory.* **van Veelen, Bregje and Dan, van der Horst.** 46, online : *Energy research and social science*, 2018.

198. *Thinking About Data With Grounded Theory*. **Charmaz, Kathy and Belgrave, Linda Liska** . 8, online : *Qualitative Inquiry*, 2019, *Qualitative Inquiry*, Vol. 25, pp. 743–753.
199. Assessing Kenya's Cooperative Model of Devolution: a situation-specific analysis. **Gathii, J. T. & Otieno, H. M., 2018**. *Federal Law Review*, 46(1), pp. 596-613.
200. Energy democracy and social movements: A multi-coalition perspective on the politics of sustainability transitions. **Hess, D. J., 2018**. *Energy Research & Social Science*, 40, 177-189.
201. Women's leadership in renewable transformation, energy justice and energy democracy: Redistributing power. **Allen, E., Lyons, H., & Stephens, J. C., 2019**. *Energy Research & Social Science*, 57, 101233.
202. Elusive publics in energy projects: The politics of localness and energy democracy. **Pesch, U., 2019**. *Energy Research & Social Science*, 56, 101225.
203. Energy democracy in a continuum: Remaking public engagement on energy transitions in Thailand. **Delina, L. L., 2018**. *Energy Research & Social Science*, 42, 53-60.
204. Coalitions, framing, and the politics of energy transitions: local democracy and community choice in California. **Hess, D. J., 2019**. *Energy Research & Social Science*, 50, 38-50.
205. Of renewable energy, energy democracy, and sustainable development: A roadmap to accelerate the energy transition in developing countries. **Cantarero, M. M. V., 2020**. *Energy Research & Social Science*, 70, 101716.
206. Developing an intersectionally-informed, multi-sited, critical policy ethnography to examine power and procedural justice in multiscale energy and climate change decision making processes. **Ryder, S. S., 2018**. *Energy research & social science*, 45, 266-275.