Chapter 6

Gender in Electricity Policymaking in India, Nepal and Kenya

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Abstract Electricity is regarded as a basic amenity fundamental to improving human well-being and overall economic development. It also contributes to improving gender parity and social inclusion, especially in situations where women are challenged by harsh living conditions. This chapter examines how gender issues that were considered are addressed in the policies related to electricity in India, Kenya, and Nepal. The analysis reveals that whilst more than half of the reviewed documents were devoid of any explicit mention of gender concerns, an increasing number of electricity policies are now reflecting gender considerations. The predominantly “gender-blind” approach towards the potential benefits of electricity access emanates from a reluctance to explicitly acknowledge gender based differences in needs in creating equitable outcomes. The assumption that electricity access itself is enough for associated benefits to trickle down, that too equitably for men and women, stems from limited awareness. This is aggravated further by the absence of documented evidence on the merit of including gender elements in electrification policies and programmes. Based on the review of existing electricity policies, this chapter provides specific recommendations for incorporating gender in the electricity policies with a view to support and address the broader energy justice concerns.

6.1 Introduction

Access to modern forms of energy, particularly electricity, is considered as crucial for overall human development. It is often deemed as an important pathway for improving gender equality and social inclusion, particularly in contexts where women are challenged by harsh living conditions and discriminatory norms. Existing literature from around the globe provides enough empirical evidences to

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validate the positive impact of access to adequate and reliable modern energy including electricity, on people's lives, and especially on women (GSI 2016; Winther 2008; Practical Action 2010). Whilst some of these evidences highlight the contribution of access to electricity in improving overall public services such as water supply, health, education and access to information and communication (Winther 2008; IUCN 2017), many other evidences suggest its role in improving the overall well-being of women through reduced drudgery, increased income and reduction in poverty (Dinkelman 2011; Grogan and Sadanand 2013; Standal and Winther 2016). This is further substantiated by studies that suggest that access to electricity also enhances women's economic opportunities (UNDP/ESMAP 2004; Sovacool et al. 2013; Matinga 2010). In addition, access to electricity enables children to have a more comfortable study environment at home and facilitate women gaining extra hours of productivity after sunset (Barkat et al. 2002; Laksono and Subagya 2003).

The disproportionate effects of the burden of energy deficiency on women have also been well documented (Clancy et al. 2004; ENERGIA/DfID 2006). Some of the lopsided effects of energy poverty on women and girls, representing unjust household energy dynamics, include the use of traditional biomass for cooking and lighting leading to adverse health issues, the drudgery associated with collecting firewood and fetching water, the burden of carrying out household chores without adequate light or using traditional lamps, discomfort in studying for students, and safety concerns related to mobility in the absence of community lighting (van de Walle et al. 2015; Rewald 2017).

Whilst there are numerous empirical studies on the welfare and economic impacts of electricity as well as the lopsided effects of energy poverty on women as delineated above, there is not enough evidence to understand how these issues are addressed by policymakers and how they are incorporated in the energy policies of many countries. Moreover, whilst there is a growing acceptance amongst policymakers of the importance of integrating gender impacts into the energy policies, in reality, the policies are often limited to gendered welfare schemes or contain vague gender references (ENERGIA/DfID 2006).

The aspirations regarding integrating gender into the energy policy domain has also assumed greater significance since the introduction of UN Sustainable Development Goals (SDG). As Goal 7 calls for ensuring 'access to affordable, reliable, sustainable and modern energy for all', including women and girls, such an integration will serve as both a precondition of and outcome to achieve the target of Goal 5 of SDG, which stresses on strengthening sound policies and enforceable legislation for the promotion of gender equality and empowerment at all levels.

Moreover, placing gender concerns in the policy regime is ever more regarded as crucial to address the broader social justice and energy ethics concerns. Analysis of 15 years of energy scholarship (Sovacool 2014a, b) has identified a critical need to integrate social science-related disciplines with energy studies. Hence, the popular energy justice framework proposed by Sovacool et al. (2016) calls for ensuring balance of all the competing aims in energy policy and implores the trade-offs made in the energy sector to be inherently more just and equitable in their societal outcomes rather than favouring different sections or factions within society. Though the

inclusion of gender in the energy justice and ethics realm is not explicit in the framework, it resonates with its core idea in terms of equitable sharing of outcomes. Likewise, Jenkins et al. (2017) have emphasised the need for dovetailing energy justice and policymaking to manage the translation of broad universally accepted values into real life down to the household and individual level.

In this context, this chapter aims to comprehensively examine how a few of the frontrunners amongst the developing countries recognise and prioritise gender elements and integrate them into their national electricity policies. This chapter also aims to document specific examples to illustrate the gendered outcomes of the electricity policies/programmes, mainly good practices as well as some evident gaps, with a view to informing the formulation of evidence-based and gender-responsive electricity policies.

6.2 The Gender Dimensions of Electricity Policies

Gender-related provisions in energy policies, particularly in electricity services, have often been formulated at international levels through long drawn out consultative processes led mostly by the UN agencies. One of the earliest instances was the United Nations Fourth World Conference on Women in Beijing in 1995, where Objective G of the Platform for Action called for gender mainstreaming in all policies and programmes (UN Women 1995). The Beijing Declaration clearly identified the need for inclusion of women's priorities in public investment for economic infrastructure including electrification and energy conservation (UN Women 2014). Likewise, the Ninth Session of the UN Commission on Sustainable Development (CSD-9) in 2001 specifically recommended governments to "support equal access for women to sustainable and affordable energy technologies through needs assessments, energy planning and policy formulation at the local and national level" (ECOSOC 2001). The more recent SDGs (goals 5 and 7) and related initiatives like the Sustainable Energy for All (SE4ALL) also clearly recognise the need for addressing gender inequalities and advancing women's empowerment towards achieving the goal of universal access to modern energy.

Despite the international commitments towards gender-responsive energy policies, the 2017 report by the International Union for Conservation of Nature (IUCN) reported that only a third of the 192 national energy frameworks reviewed included any references to women and/or gender (IUCN 2017). Another IUCN (2018) review noted that nearly three-fourths of the 45 documents from 29 Sub-Saharan African countries reviewed considered gender to some extent within their principles, objectives, strategies or activities (IUCN 2018). A review by UN Women and UNDP-UNEP PEI (2017) shows a positive trend, where energy policies acknowledged the need for enhancing women's participation in policymaking and decision-making in the sector. In academia, a limited literature reviews gender inclusion in electricity policies especially in India, Nepal and Kenya. Notable exceptions include the gender audits of energy policies and programmes, assisted and/or conducted by

ENERGIA, in countries such as Botswana, Kenya, Senegal, Philippines, India, Nigeria and Ghana (ENERGIA 2011).¹ Yet more work is required.

As noted by Oparaocha and Dutta (2011), very few energy policies included gender mainstreaming in their frameworks. Indeed, gender disparities have rarely been addressed as an integral part of the national energy policies and programme design (Cecelski 2005; Köhlin et al. 2011)—arguably as a result of the non-availability of gender-disaggregated data to inform energy policies (Clancy et al. 2011). Where they are included, these gender discourses, especially in the Global South, have and continue to be focussed primarily on cooking energy sector, which represents only a small fraction of potentially relevant concerns (Cecelski 1995; IRADE 2009; Practical Action 2014).

Though there has been some progress in mainstreaming gender in electricity policies of many countries, the attempts are not well structured, and often not applied at the national scale. The absence of a systematic gender integration in electricity policies at large appears as a paradox in the light of the expressed commitments to support gender equality by the various national and international programmes, including the SDGs. It is in this context that the large investments into electrification projects raise ethical questions on the distribution of benefits or burden of skewed interventions on gender at large. Moreover gender inclusion in the policy regime is also in sync with the emerging theme of energy ethics and justice which recognises participation, representation and distribution of energy transformation's benefits and constraints (Miller 2014; Sovacool et al. 2016).

6.3 Objectives

This chapter explores some aspects of the following research questions:

- To what extent do gender elements form a part of the electricity policies of India, Nepal and Kenya?
 - The review traces the trajectory of the gender discourse in the electricity sector policies/programmes and their relevance as a tool to promote equality and empowerment.
- To what extent and how are these policies implemented in practice?
 - The review will document some examples that reflect the extent to which the national policies/programmes of India, Nepal and Kenya may have translated or have missed opportunities for achieving gender outcomes.

¹A few other studies that have tried to analyse gender in energy policies include Sengendo (2011), IUCN (2017, 2018) and UN Women and UNDP-UNEP PEI (2017).

6.3.1 Approach and Methods

The research consisted of a comprehensive desk review and critical assessment of national and sub-national electricity policies of three countries—India, Nepal and Kenya. The documents reviewed included electricity acts/policies/plans/programmes of the respective countries. Only publicly available documents in English were considered for review. A total of 47 policies/plans/programmes—14 from India, 23 from Nepal and 10 from Kenya—were assessed in the study.

To ascertain the inclusion of gender in electricity policies, the documents were assessed using the following criteria:

- (a) Offer scope to enhance women's participation and access to electricity
- (b) Address women and girls' needs as end users
- (c) Ensure women's involvement in supply
- (d) The extent to which women take part in policy formulation and execution

In order to gauge this, the authors undertook a two-stage analysis. In the first stage, the team collected a range of electricity policies/plans/acts/programmes in each country primarily implemented/enacted within the last five decades. Gender-related key words (e.g. "gender", "girl", "women", "female", "gender mainstreaming", "engendering", "gender budgeting", "gender equality", "gender inclusion" and "mother", "daughter", "sister", "wife") were searched for in these policy documents based on IUCN's Global Gender Office's gender keyword dictionary, and gender mainstreaming documents of ADB, ESMAP, World Bank and ENERGIA, amongst others. Wherever explicit mention of gender/women could not be located, other related key words were considered such as "stakeholder", "beneficiary", "customers", "consumer", "end-user", "vulnerable", "labourer", "marginalised", "member", "decision maker", "participant", "household energy", "female-headed household", "villager", "agents of change", "franchisee", "Self-Help Group" and "empowerment". These words were blanket terms which were gender neutral, and thus were understood to implicitly include women also and thus allowed for the analysis of even those electricity-related policies/plans for any gender connotations, which did not directly mention gender.

The next stage consisted of analysing the context of such key words in the policy documents. Finally, one example was documented from every country based on secondary literature to illustrate the outcomes of the gendered policies/legislations, including good practices as well as some evident gaps.

6.3.2 Limitations

This review does not undertake an in-depth assessment of the conceptualisation, implementation and the outcomes of the policies, though efforts were made to capture some good practices and missed opportunities, thus is limited in scope. The

structure, content, nature, scope and mandate of the electricity policies in each country also differed since the policies were aligned with their respective overall national objectives. Furthermore, various electricity policies were conceptualised and implemented in different years in our study countries, hence attributing linear patterns in their evolution or implementation was not possible.

This chapter does not claim to offer strict comparison of gender inclusion based on the trajectory of policies across the three countries, rather it deals with the analysis of the nature of gender inclusion based on the identified key words. It is also important to note that mere gender inclusion in policy frameworks does not precisely reflect ground-level implementation and realisation of the intended benefits, and hence will not give a complete understanding of gender equality and empowerment in the energy domain. Considering these limitations, this review is a modest effort to provide insights to understanding the commitments made by the national governments to promote gender equality and women's empowerment in the energy sector.

6.4 Findings

6.4.1 *Gender Inclusion in the Electricity Sector Policy in India*

Table 6.1 captures the key features of electricity policies in India and the indication of gender-related key words in them.

Planned electrification in independent India began in the 1950s and has since seen consistent progress in terms of infrastructure development and large-scale power sector reforms. The earliest electrification programmes were formulated to provide the population with basic minimum facilities and laid the foundation of public infrastructure, which has since been progressively strengthened. Though universal electrification has been the commitment of successive governments, special provisions were made to make basic electricity services available to the poor, marginalised and disadvantaged. However, attention to gender has historically failed to take centre stage in electricity policies in India, making an appearance only comparatively recently (see Table 6.1). It was observed that policies mostly used gender-neutral terms such as “consumer” or “customer” to address beneficiaries of both genders in an equal manner. Amongst the policies reviewed those few that do address women or girls explicitly have been summarised in the following section.

Characterisation of Women in Policies

Table 6.2 captures how the policy/plan characterises women in India's electricity policies.

Table 6.1 Electricity policies in India—key features and gendered terminology

Name of the policy/plan/programme	Key features	Mention of gender or related terminology
Electricity Supply Act (1948)	<ul style="list-style-type: none"> Mandated constitution of central electricity authority and state electricity boards 	'Consumers', 'member', 'persons', 'workmen'
The Minimum Needs Programme (Fifth Five Year Plan: 1974–1979)	<ul style="list-style-type: none"> Provides for rural electrification in remote/far-flung villages 	None
Kutir Jyoti Programme (1988–1989)	<ul style="list-style-type: none"> Improve quality of life of the poorest by extending a single-point connection to below poverty line (BPL) households 100% grant for one-time cost of internal wiring and connection charges 	'Beneficiaries'
Electricity Supply Act 1991 Amendment	<ul style="list-style-type: none"> Document Not Available (DNA)^a 	Not applicable (NA)
Electricity Regulatory Commission Act (1998) ^b	<ul style="list-style-type: none"> Initiated setting up of regulatory bodies at central and state levels for tariff fixation 	'Consumers'
Pradhan Mantri Gramodaya Yojana ^c (2000–2001)	<ul style="list-style-type: none"> DNA 	NA
Accelerated Rural Electrification Programme (2002–2003)	<ul style="list-style-type: none"> DNA 	NA
Electricity Act (2003) ^d	<ul style="list-style-type: none"> Provisions for use of decentralised stand-alone systems to electrify rural areas Introduced reforms—unbundling of state electricity boards, de-licensing generation, open-access electricity market and power trading 	'Consumers'
Accelerated electrification of 100,000 villages and ten million households (2004)	<ul style="list-style-type: none"> DNA 	NA
Rural Electricity Supply Technology Mission (2004)	<ul style="list-style-type: none"> DNA 	NA
National Electricity Policy (2005) ^e	<ul style="list-style-type: none"> Ensure electricity access to all households at reasonable rates Achieve minimum energy consumption of 1 kWh per household per day 	'Community', 'customers', 'consumers'
Rajiv Gandhi Grameen Vidyutikaran Yojana ^f (RGGVY) (2005) ^g	<ul style="list-style-type: none"> Mandated free connections for BPL families Promoted decentralised distributed generation projects where grid extension is not feasible Central government covered 90% of capital cost and the rest by the states 	'Consumers', 'self-help groups', 'franchisee'

(continued)

Table 6.1 (continued)

Name of the policy/plan/programme	Key features	Mention of gender or related terminology
Rural Electrification Policy (2006) ^b	<ul style="list-style-type: none"> Provision of quality and reliable electricity supply to all households at reasonable rates 	'Women', 'consumers', 'community', 'stakeholders'
Integrated Energy Policy (2006) ⁱ	<ul style="list-style-type: none"> Reliably meet demand for energy services of all sectors at competitive prices 	'Women', 'consumers', 'community', 'disadvantaged'
Remote Village Electrification Programme (2003–2004)	<ul style="list-style-type: none"> DNA 	NA
Village Energy Security Programme	<ul style="list-style-type: none"> DNA 	NA
Jawaharlal Nehru National Solar Mission ^j	<ul style="list-style-type: none"> Achieve grid parity for solar photovoltaic and thermal power by year 2022 	'Consumers', 'customers'
Deen Dayal Upadhyaya Gram Jyoti Yojana (2014) ^k	<ul style="list-style-type: none"> RGGVY subsumed into this scheme Strengthening sub-transmission and distribution network Separation of domestic and agriculture feeders 	'Consumers', 'customers'
Ujwal Discom Assurance Yojana (2015) ^l	<ul style="list-style-type: none"> Revamping financial health of ailing discoms^m State governments to take over 75% of debt of discoms 	None
24/7 Power for All ⁿ	<ul style="list-style-type: none"> Joint initiative of central government and states/union territories 	Not in the overall scheme. Separate documents for each state were not analysed
Prime Minister Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) (2017) ^o	<ul style="list-style-type: none"> Provide "last mile" connectivity to all unelectrified households by March 2019 Where grid extension is not feasible, households to be provided with solar PV stand-alone systems or power packs 	'Consumers', 'beneficiary', 'stakeholders', 'villagers', 'female-headed households'

^aPolicies/programmes where document is not available have not been reviewed

^b<http://www.cercind.gov.in/ElectReguCommiAct1998.pdf>

^cRoughly translated into "Prime Minister's Rural Scheme"

^d<http://www.cercind.gov.in/Act-with-amendment.pdf>

^e<http://www.derc.gov.in/ActsPolicies/ActsPolicesfiles/National%20Electricity%20Policy.pdf>

^fTranslated into "Rajiv Gandhi Rural Electrification Scheme"

^g<http://indianpowersector.com/home/electricity-regulation/government-programmes/>

^h<http://www.ielrc.org/content/e0639.pdf>

ⁱhttp://planningcommission.gov.in/reports/genrep/rep_intengy.pdf

^j<https://mnre.gov.in/file-manager/UserFiles/draft-jnnsmpd-2.pdf>

^khttps://powermin.nic.in/sites/default/files/uploads/Deendayal_Upadhyaya_Gram_Jyoti_Yojana.pdf. The Hindi name of the scheme roughly translates to "Deen Dayal Upadhyaya Rural lighting scheme"

^l<https://www.uday.gov.in/about.php>

^mShort for Distribution Company

ⁿ<http://www.recindia.nic.in/power-for-all>

^ohttps://powermin.nic.in/sites/default/files/webform/notices/OM_Saubhagya_Signed_COPY.pdf. The name translates to "Prime Minister's Scheme for Electricity for All homes"

Table 6.2 Reflection of gender terms in India's electricity policies (2005–2017)

Name of the policy/plan/programme	Gender context in electricity policy
Rajiv Gandhi Grameen Vidyutikaran Yojana (2005)	<ul style="list-style-type: none"> Provisions for community participation through SHGs (including those for women) to take up project franchises
Rural Electrification Policy (2006)	<ul style="list-style-type: none"> Acknowledges that the burden of non-availability of energy falls more on women Encourages women's participation in the implementation of rural electrification programmes
Integrated Energy Policy (2006)	<ul style="list-style-type: none"> Identifies disproportionate impacts and drudgery of using traditional energy sources on women and girls Recognises the lack of attention paid to gender issues in energy policies Suggests greater participation by women's groups in taking up franchises of Rajiv Gandhi Grameen Vidyutikaran Yojana
Prime Minister Sahaj Bijli Har Ghar Yojana (SAUBHAGYA) (2017)	<ul style="list-style-type: none"> Identifies multiple categories of households that are eligible for scheme, including female-headed households

Out of the 14 Indian policies analysed, only 4 have included gender-specific terms and indicators. Amongst these, the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), a rural electrification programme implemented during 2005–2014, stands out for providing a good example of using policies as a vehicle for incorporating gender measures. The RGGVY offered women the scope to take franchises, through women's SHGs, for metering, billing, connection practices and running local networks.

Another notable policy is the Rural Electrification Policy of 2006, which recognised the importance of women's participation to ensure "effective, efficient and sustainable implementation of rural electrification programs", required women's representation in the District Committees formed under section 166(5) of the Electricity Act. Clear gender references and provisions can also be found in the Integrated Energy Policy of 2006, which acknowledges the disproportionate impacts and drudgery of using traditional energy sources on women and girls. The policy design also recognises "Household Energy Security" and offers measures such as electricity, clean cooking options and fuel wood plantations to meet the energy needs. Whilst provisions for women's involvement and participation can be found in the policy, it mostly dealt with biomass and cooking energy, further deepening the gender stereotyping. In terms of electricity, this policy refers back to RGGVY and makes the same suggestion as the former. The latest programme for household electrification—SAUBHAGYA—identifies female-headed households as eligible beneficiaries for free electricity connection, but no further references to the role of women in the scheme are found.

India, though, has effectively committed to achieving the SDG goals (5 and 7) and several important initiatives have been taken in the last 2 years for promoting

gender equality and also for achieving universal energy access, integrating gender equality and women's empowerment into essential energy policies and action, desire more commitment.

6.4.2 Gender Inclusion in the Electricity Sector Policy in Nepal

Table 6.3 captures the key features of Acts, Policies, Programmes and Periodic plans in Nepal and the indication of gender-related key words in them.

The thrust of the various electrification policies of Nepal over the years has primarily been to ensure access to all parts of the country, as well as to enable capacity addition. The initial schemes focus solely on the development of hydro power, along with thermal power stations to meet the power demands and economic activities of the population. The emphasis was also on electrifying remote mountainous rural areas through micro and mini hydro projects. In later years, the government began to promote renewable and clean technologies through the Alternative Energy Promotion Centre (AEPCC), as way to fulfil energy access obligations in an environmentally sustainable manner.

The analysis shows that the initial electrification schemes were gender blind² as successive governments prioritised providing electricity access to all parts of the country, and all sections of society without discrimination. This is evident from the policy summary where a diverse range of terms such as “consumer”, “customer”, “user-groups”, and “manpower” have been used to generally describe beneficiaries. However, it is also notable that the policies of the past two decades exhibit more gender awareness, both in terms of recognising the disproportionate impacts of non-availability of electricity on women, and in terms of making appropriate provisions to ensure inclusion.

Characterisation of Women in Nepalese Energy Policies

Table 6.4 captures how the policy/plan/programme characterises women in Nepal's electricity policies.

In Nepal, 6 of the 23 plans and policies analysed include some references to gender and can be comparatively considered as “gender-responsive” and “gender integrating”, given they included “gender mainstreaming” or “women's involvement, participation and representation” as guiding principles. For instance, the Tenth FYP (2002–2007), the National Rural and Renewable Energy Programme (2012), and the National Energy Strategy (2013) acknowledge the role of women in energy planning and decision-making processes, both as professionals and grass-

²The failure in policies and interventions to recognise that women's and men's positions and needs are often different.

Table 6.3 Acts, policies, programmes and periodic plans in Nepal—key features and gendered terminology

Name of the periodic plan	Key features	Mention of gender or related terminology
The First Five-Year Plan (FYP) (1956–1961) ^a	<ul style="list-style-type: none"> First planned approach to electrification Hydro and diesel power generation projects started 	'Community'
Second FYP (1962–1965)	<ul style="list-style-type: none"> DNA 	NA
Third FYP (1965–1970) ^b	<ul style="list-style-type: none"> Increase generation, construct new transmission networks 	None
Fourth FYP (1970–1975) ^c	<ul style="list-style-type: none"> Utilising water resources for power generation and supply 	None
Fifth FYP (1975–1980) ^d	<ul style="list-style-type: none"> Maximising power output to meet basic needs of people 	'Manpower', 'labour', 'community', 'consumers'
Sixth FYP (1980–1985) ^e	<ul style="list-style-type: none"> Increase power production Promote domestic use of electricity to reduce burdens on forests Electrify transport industry 	'Local labour'
Seventh FYP (1985–1990) ^f	<ul style="list-style-type: none"> Increasing power production Construction of small hydro plants in mountainous areas 	<i>Training programmes for people involved in alternate energy is mandated</i>
Eighth FYP (1992–1997) ^g	<ul style="list-style-type: none"> Rural electrification and development of electrified transport Hydropower development policy enacted 	'Local labour', 'manpower', 'local people'
Ninth FYP (1997–2002) ^h	<ul style="list-style-type: none"> Expanding electricity network in economically sustainable manner 	'People's participation', 'indigenous talent', 'consumers', 'user-groups'
Tenth FYP (2002–2007) ⁱ	<ul style="list-style-type: none"> Same objectives as the previous plan Focuses on utilising local labour in hydro projects and establishing an institution to produce and train manpower 	'Nepali labour', 'women', 'manpower', 'people', 'consumers', 'community user groups', 'local labour'
Eleventh Plan (2007–2010) (Three-year interim plan) ^j	<ul style="list-style-type: none"> Promoted domestic and foreign investments in hydro power Emphasis on local participation, training and capacity building of manpower engaged in electricity projects 	'Women', 'people', 'Community', 'labour', 'consumers', 'manpower', 'human resources', 'individuals', 'dalits', 'adibasi janjatis', 'marginal communities'
Thirteenth Plan (2013–2016) ^k	<ul style="list-style-type: none"> Development of renewable energy in areas where grid is unlikely to reach 	'People', 'local users', 'citizens', 'community'
Nepal Electricity Authority Act (1984) ^l	<ul style="list-style-type: none"> Establishment of Nepal Electricity Authority 	'Consumers'

(continued)

Table 6.3 (continued)

Name of the periodic plan	Key features	Mention of gender or related terminology
Electricity Act (1992) ^m	<ul style="list-style-type: none"> • Legalised private sector participation in power sector • Authorised setting up of a Tariff Fixation Commission 	'Consumers'
Nepal Electricity Authority Act (1984) ⁿ	<ul style="list-style-type: none"> • Establishment of Nepal Electricity Authority 	'Consumers'
Hydro Power Development Policy (1992) ^o	<ul style="list-style-type: none"> • Supply electricity to meet domestic and industrial demands • Motivate national and foreign private sector investment in hydro power 	None
Electricity Act (1992) ^p	<ul style="list-style-type: none"> • Legalised private sector participation in power sector • Authorised setting up of a Tariff Fixation Commission 	'Consumers'
Subsidy Policy for Renewable Energy (2000) ^q	<ul style="list-style-type: none"> • Use of RETs in rural areas and to attract private sector to RET's market • Provide low-income households opportunity to access services 	'User', 'end-users' and 'consumer'
Hydro Power Development Policy (2001) ^r	<ul style="list-style-type: none"> • The 1992 policy was revised to imbibe technological advancements, new market trends, and to enhance foreign investment • Small and mini hydro projects encouraged for remote areas 	'Consumers'
Rural Energy Policy (2006) ^s	<ul style="list-style-type: none"> • Rural poverty reduction and environmental conservation through clean, reliable energy • Private sector investments emphasised 	'Women', 'users', 'marginalised', 'disadvantaged', 'low caste', 'backward groups'
Community Electricity Distribution By-Laws (2003) ^t or Community Rural Electrification Programme	<ul style="list-style-type: none"> • Promote public participation in electricity distribution • Augment technical and managerial capability of rural community • 80% of project cost covered by government, 20% arranged by community • To avail subsidy the community has to form a Community Rural Electrification Entity (CREE) 	'Community', 'customer', 'consumer' Though not stated in by-laws, gender and social inclusion is mandated in user groups

(continued)

Table 6.3 (continued)

Name of the periodic plan	Key features	Mention of gender or related terminology
National Rural and Renewable Energy Programme (NRREP) (2012) ^u	<ul style="list-style-type: none"> • Improve living standard, employment and productivity of rural women and men • Reduce dependency on traditional energy • Emphasis on involving beneficiaries in decision-making and productive use of energy 	<i>The Gender and Social Inclusion (GESI) guidelines mainstreamed into development objective, outputs, activities and project monitoring</i>
National Energy Strategy (2013) ^v	<ul style="list-style-type: none"> • Devised to meet energy demands of people through efficient use of indigenous energy resources • Covers a number of energy issues and different energy technologies 	'Women', 'weak socio-economic groups' such as dalits
Renewable Energy Subsidy Policy (2016) ^w	<ul style="list-style-type: none"> • Revision of the 2000 subsidy policy (increase access to renewable energy, improve livelihoods and create employment in rural areas) 	'Women'; women-led households are classified as 'targeted beneficiary groups'

^ahttps://www.npc.gov.np/images/category/FirstPlan_Eng.pdf

^bhttps://www.npc.gov.np/images/category/Thirs_ENG.pdf

^chttps://www.npc.gov.np/images/category/fourth_eng.pdf

^dhttps://www.npc.gov.np/images/category/fifth_eng.pdf

^ehttps://www.npc.gov.np/images/category/sixth_eng.pdf

^fhttps://www.npc.gov.np/images/category/seventh_eng.pdf

^ghttps://www.npc.gov.np/images/category/eighth_eng.pdf

^hhttps://www.npc.gov.np/images/category/ninth_eng_2.pdf

ⁱhttps://www.npc.gov.np/images/category/10th_eng.pdf

^jhttps://www.npc.gov.np/images/category/11tyip_eng.pdf

^khttps://www.npc.gov.np/images/category/13_plan_Approach_paper_english.pdf

^l<http://www.lawcommission.gov.np/en/documents/2015/08/nepal-electricity-authority-act-2041-1984.pdf>

^mhttp://www.doed.gov.np/policy/Electricity_Act_2049-english.pdf

ⁿ<http://www.lawcommission.gov.np/en/documents/2015/08/nepal-electricity-authority-act-2041-1984.pdf>

^ohttp://www.nea.org.np/admin/assets/uploads/supportive_docs/4561Hydropower%20Development%20Policy.pdf

^phttp://www.doed.gov.np/policy/Electricity_Act_2049-english.pdf

^q[https://www.aepc.gov.np/uploads/docs/2018-06-19_RE%20Subsidy%20Policy,%202073%20\(English\).pdf](https://www.aepc.gov.np/uploads/docs/2018-06-19_RE%20Subsidy%20Policy,%202073%20(English).pdf)

^r<http://www.lawcommission.gov.np/en/documents/2015/08/hydropower-development-policy-2058-2001.pdf>

^s<http://www.mope.gov.np/download/RE-Policy-2006.pdf.1dc9d388e707e63d760639ed49a98af1>

^thttp://www.nea.org.np/admin/assets/uploads/supportive_docs/Community%20Electricity%20Distribution%20Bylaw.pdf

^u<https://policy.asiapacificenergy.org/sites/default/files/NRREP%20Programme%20Document-June%202012.pdf>

^v<http://www.weecs.gov.np/uploaded/National-Energy-Strategy-of-Nepal-2013.pdf>

^w[https://www.aepc.gov.np/uploads/docs/2018-06-19_RE%20Subsidy%20Policy,%202073%20\(English\).pdf](https://www.aepc.gov.np/uploads/docs/2018-06-19_RE%20Subsidy%20Policy,%202073%20(English).pdf)

Table 6.4 Reflection of gender terms in Nepal's electricity policies

Name of the policy/ plan/programme	Gender context in electricity policy
Tenth FYP (2002–2007)	<ul style="list-style-type: none"> • Envisages involving women in every level and sector of policy implementation • Involve women in production, distribution and consumption of electricity
Eleventh Plan (2007–2010) (three-year interim plan)	<ul style="list-style-type: none"> • Encourages women's participation in the Rural Electrification Programme
Rural Energy Policy (2006)	<ul style="list-style-type: none"> • Recommends the design and implementation of special programmes for rural energy access with benefits to women and children • Mandates formation of user groups for power projects with representation of women • Integrating women's development programmes with rural energy programmes
National Rural and Renewable Energy Programme (2012)	<ul style="list-style-type: none"> • Mainstreamed Gender Equality and Social Inclusion (GESI) guidelines at all levels. GESI mainstreaming entails specific affirmative action for empowerment of women by augmenting their technical capabilities and fostering a sense of ownership of technology
National Energy Strategy (2013)	<ul style="list-style-type: none"> • Acknowledges the lack of women's representation in energy planning and decision-making • Strategises involving women proactively, to enhance their capacity and instil a sense of responsibility
Renewable Energy Subsidy Policy (2016)	<ul style="list-style-type: none"> • Encourages use of RETs to reduce drudgery of rural women • Women-led households categorised as one of 'targeted beneficiary groups'

roots workers. Indeed, the emphasis is on the active role of women in the production, distribution and consumption of electricity. The GESI guidelines also ensure women and men are given equal access and benefits from renewable energy technology deployment.

The Rural Energy Policy (2006) noted the possible positive impact of special programmes to increase access to modern energy in rural areas on women and children. The policy also envisaged formulating programmes for women's development with women as an integral part. The Subsidy Policy for Renewable Energy (2013) emphasised on accelerating renewable energy service delivery and enhancing productive use of energy in order to benefit men and women for more equitable economic growth, and to create rural employment, particularly for women. The policy also provided for an additional subsidy benefit of NPR 2500–4000 (USD 23.63–37.81)³ per household for single women headed households and other disadvantaged groups.

³ One USD = 113.48 NPR (As on 20 February 2019).

The authors are of the opinion that by incorporating a commitment to gender inclusion in electricity policies and thus recognising and prioritising gender in the last two decades, Nepal has shown clear pathways on gender mainstreaming in macroeconomic and sectorial policies to achieve SDG targets.

6.4.3 Gender Inclusion in the Electricity Sector Policy in Kenya

Table 6.5 captures the key features of electricity policies in Kenya and the indication of gender-related key words in them.

As in the case with India and Nepal, initial Kenyan policies and schemes on electricity focussed primarily on establishing the infrastructure and hence laid down guidelines for regulation of the generation, transmission, and distribution segments of the power sector. With time, policies shifted their focus more towards ensuring equitable access to all the sections of society in a sustainable manner, thus, leading to schemes for promoting renewable energy technologies and rural electrification were initiated. More recent policies clearly show an all-encompassing and holistic approach towards the energy sector and thus, gender and related issues gained prominence. Though all ten of the reviewed policies adopt a largely gender-neutral approach and address beneficiaries as “consumer”, “customer”, “youth” and “vulnerable”, amongst others, some policies do have exclusive targets for gender, especially women, which have been captured in Table 6.6.

Characterisation of Women in Policies

Table 6.6 captures how the policy/plan/programme in which there are elements of gender inclusion characterises women.

Four of the ten energy policies of Kenya analysed for this chapter contain explicit gender references and provisions. The very first gendered policy for electricity is Sessional Paper No. 4 of 2004. Although the exclusive gender sub-section of the policy is centred on women’s access to biomass and clean cooking, there are other sections in the policy that reference the need to address the gender imbalances in energy policy formulation by involving women in the process. In all three of Kenya’s draft National Energy and Petroleum policies (2012, 2014, and 2015), gender mainstreaming in energy planning and development has been recognised as one of the key challenges. These policies lay out the framework for meeting the needs of women, youth and persons with special needs. The draft energy policies also necessitate the government of the day to comply with Article 27(8) of the Constitution, which requires equality and freedom from discrimination, and implementation of the one-third minimum gender principle in the membership of all elective or appointive bodies. The policies, however, remain in a draft form. Nevertheless,

Table 6.5 Electricity policies in Kenya—key features and gendered terminology

Name of the policy/ plan/programme	Key features	Mention of gender or related terminology
Electric Power Act Number 11 of (1997)	<ul style="list-style-type: none"> To facilitate and regulate generation, transmission, distribution, and use of electric energy 	<i>'Customers'</i>
Sessional Paper No. 4 (2004)	<ul style="list-style-type: none"> Electricity sub-section: Authorised privatisation of generating utility and unbundling of the state transmission and distribution company Promotion of private and community-owned renewable energy and hybrid power plants Encouraged competition in electricity retail market 	<i>'Gender', 'Women', 'Girl', 'Consumers', 'Customers', 'Vulnerable', Beneficiaries', 'Persons', 'People'</i>
Energy Act (2006)	<ul style="list-style-type: none"> Mandated establishment of Electricity Regulatory Commission, Rural Electrification Authority, and the Energy Tribunal Reforms in the form of inclusion of energy policy and integrated energy plan 	<i>'Customers'</i>
Rural Electrification Master Plan	<ul style="list-style-type: none"> DNA 	NA
Kenya Vision (2030) (2007)	<ul style="list-style-type: none"> Increase energy supply through large scale power infrastructure development 	<i>'Youth', 'Women', 'Men', 'Vulnerable' used in document but not in electricity context</i>
Feed in Tariff Policy, 2010	<ul style="list-style-type: none"> Provides investment security to renewable power generators Encourages private investment through independent power producers 	<i>'Consumers'</i>
Draft National Energy Policy (2012) (Sessional Paper—Third Draft)	<ul style="list-style-type: none"> Electricity sub-section: Elaborates on challenges faced by sector, and defines short, medium and long-term strategies for electricity sources, including renewable energy 	<i>'Gender', 'Consumers', 'Customers'</i> <i>There is a section on gender in the policy document (9.7.1.5)</i>
The National Energy Policy and Energy Bill (2013)	<ul style="list-style-type: none"> Mandated establishment of energy sector entities Promoted renewable energy 	<i>'Consumers'</i>
Draft National Energy Policy (2014)	<ul style="list-style-type: none"> Electricity sub-section: Follows up on draft national energy policy of 2012 Presents roadmap for developing the sector further 	<i>'Gender', 'Women', 'Youth', 'Consumer', 'Customer', 'Marginalised', 'Minorities'</i>
National Energy and Petroleum Policy (2015)	<ul style="list-style-type: none"> Broadly same as the previous version—National Energy Policy (2014) 	<i>'Gender', 'Women', 'Consumers', 'Customer', 'Marginalised'</i>

Table 6.6 Reflection of gender terms in Kenya's electricity policies (2004–2015)

Name of the policy/ plan/programme	Gender context in electricity policy
Sessional Paper No. 4 (2004)	<ul style="list-style-type: none"> • Gender sub-section 5.4 highlights drudgery faced by women due to lack of access to modern energy. The document primarily refers to biomass energy, not electricity • Section 5.9 endorses redressing gender imbalances in energy sector management • Section 6.6.10 emphasises the need to integrate women in energy policy formulation
Draft National Energy Policy (2012) (Sessional Paper— Third Draft)	<ul style="list-style-type: none"> • Acknowledges lack of gender mainstreaming in energy • Mandates implementation of 'one-third gender principle' in energy sector institutions • Incorporated gender audit of public sector institutions and gender representation in energy sector planning and implementation committees
Draft National Energy Policy (2014)	<ul style="list-style-type: none"> • Mandates mainstreaming gender into policy formulation, planning, production and use, along with implementing one-third gender reservation provision
National Energy and Petroleum Policy (2015)	<ul style="list-style-type: none"> • Section 9.4.2 mandates spreading awareness and education on modern energy services; and making them accessible and affordable

Kenya has committed to strengthening the inter-linkages between SDG 7 and SDG 5 and has called for integration of gender equality and women's empowerment into all energy actions to advance the SDGs. Further, importance is also given to develop gender-responsive policies, programmes and monitoring systems, and ensure equal participation of women in decision-making bodies in energy institutions, along with sex disaggregation and gender analysis of data to monitor SDG 7 (UNSDG 2018).

6.5 Country-Wise Policy Comparisons

A summary of key gender-specific provisions of the major gender-aware policies of the three study countries is provided in Table 6.7.

It is evident that quantitatively Nepal's gender inclusive electricity policies outnumber both India and Kenya. Nepal was also an early mover in terms of the first gender-friendly policy. Whilst the policies of the three countries advocate women's participation in energy projects overall, the provisions related to gender vary in each case.

In India, targeted provisions for women are present only in the Rural Electrification Policy and the RGGVY, in the form of women's representation in District Committees and women SHGs for franchise development. Since RGGVY was subsumed into Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), this scheme also has all these provisions. The energy policies of Kenya are seen to be more specific in terms of gender inclusion in policy. They not only acknowledge the gaps

Table 6.7 Country-wise comparison of gender in policies

Country	India	Nepal	Kenya
Key points of the gender-aware policies	<p>RGVY (2004) Promotes women SHGs to take up franchises</p>	<p>Tenth FYP (2002–2007) Involving women in every aspect of electricity supply and policy implementation—production, distribution and consumption</p>	<p>Sessional Paper No. 4 (2004) Involving women in energy policy formulation, and redressing gender imbalances in the sector</p>
	<p>Rural Electrification Policy (2006) Mandates women's representation and participation in District Committees and rural energy projects</p>	<p>Eleventh Plan (2007–2010) Encourage women's participation in rural electrification</p>	<p>Draft National Energy Policy (2012) Mandates one-third women's representation in energy sector institutions, gender auditing of public institutions and representation in energy planning and implementation committees</p>
	<p>Integrated Energy Policy (2006) Encourages uptake of franchises by women SHG's through RGGVY</p>	<p>Rural Energy Policy (2006) User groups with women's representation for power projects and women's development projects to be integrated with rural energy projects</p>	<p>Draft National Energy Policy (2014) Reiterates one-third gender reservation rule and calls for gender mainstreaming in all aspects of energy—from policy to use</p>
	<p>SAUBHAGYA (2017) Female-headed households are beneficiaries of electricity connections under the scheme</p>	<p>National Rural and Renewable Energy Programme (NRREP) (2012) Designed with GESI guidelines integrated at every stage which aimed to ensure equal access and benefits to women and men. Technical capabilities of women to be augmented</p>	<p>National Energy and Petroleum Policy (2015) Has same gender target as policy of 2014 Spreading awareness and increasing accessibility and affordability of modern energy</p>
		<p>National Energy Strategy (2013) Capacity enhancement of women by involving them in energy planning and decision-making</p> <p>Renewable Energy Subsidy Policy (2016) Women-led households considered as targeted beneficiaries</p>	

in energy policy, but also seek to bridge these gaps through actions like gender auditing; reserving seats for women in legislative bodies, jobs and boards of companies; and making it compulsory for women to participate in energy planning and implementation process. Educating the populace of Kenya on modern energy is a unique measure proposed by the National Energy and Petroleum Policy, 2015 as a part of their gender goals.

For Nepal—the most gender advanced of all the cases—policies not only acknowledge the disproportionate impacts of the lack of modern energy on women, but also propose to involve women in the different stages of policy formulation, electricity project implementation and electricity usage, along with having women's representation in electricity user groups. The NRREP (2012) has been specially designed encompassing GESI guidelines in every aspect as a means to ensure equal benefit to both genders as well as making way for women's empowerment. In all, it can be inferred that the studied policies of Nepal have a clearer and broader vision for gender inclusion, which if implemented well as per their commitment to achieving the goals of SGD 5 and 7, can bring about lasting changes in the way policies and programmes of the future are formulated.

Elements of gender inclusion in some of the electricity policies in the three countries can be considered as a first step in addressing gender dimension of energy ethics. The broader principles of energy ethics and justice which advocate concepts of distribution, recognition and processes (Jenkins et al. 2017) can be aptly applied to the gender and energy nexus. However the greater challenge is converting the gender-inclusive electricity policies into practices and the subsequent realisation of the gendered benefits.

6.6 Putting Policy into Practice

When the policies which offer scope for gender inclusion are put into practice, women can become powerful agents for energy justice through their involvement in the value chain, which itself is a critical pathway for serving the objectives of SDG (goals 5 and 7) and SE4ALL. The frame of this research looked for few examples in the study countries that represent successful transition of legislation/policy to practice as well as missed opportunities in disbursing the intended benefits to women.

On the positive side, the state electricity distribution companies in Maharashtra, Odisha and West Bengal of India involved women in last mile electricity distribution as part of the policy. The policy offered scope for women to take franchises, through women's SHGs, for metering, billing and running local networks. In Odisha, such franchises reportedly resulted in significant improvements in terms of reduced distribution losses, reduced aggregate technical and commercial losses, increased billing percentages, increased consumer coverage and increased total annual collection (Government of Odisha 2012). There are also other interesting anecdotal evidences to suggest the positive impacts of such policy interventions towards achieving gender outcomes (Box 6.1).

Box 6.1 Vidyut Sahayak of Maharashtra

Maharashtra State Electricity Distribution Company Ltd. (Mahavitaran) appoints women line staff known as *Mahila Vidyut Sahayak* (Women Electricity Support Staff) under a policy that reserves 30% of the electricity line staff jobs for women as a part of the Mahavitaran agenda for women empowerment.

Through this scheme, the electricity company has taken women as line staff to work hands-on with electricity poles, transformers, live cables and other pieces of field equipment used in a power supply network. An all-women squad, popularly known as Damini Phatak, was also implemented to address the consumer complaints regarding photo meter reading and to check meter tampering. Since the work required travelling to distant places and snapping off power supply in the event of default, the company has instituted a special redressal cell to look into work-related problems faced by women. This case was also highlighted in recent study by TERI (Dholakia 2019).

Source: http://mahadiscom.co.in/aboutus/Company_Profile_Jan15.pdf

Understanding the differentiated needs of men and women, the Rural Energy Development Programme of Nepal (initiated in 1996) established male and female community organisations with equal responsibilities and facilitated their capacity building to enhance livelihood opportunities from micro hydro systems (Rana-Deuba 2001).

On the flip side, there are also various examples that illustrate missed opportunities in the electrification sector, failing to deliver the desired benefits to women. For instance in the Village Energy Security Programme in India, whilst 50% women membership was made mandatory for village energy committees formed for managing energy projects, a study (Palit et al. 2013) found that women's participation was in reality minimal, or almost absent in most projects, and women hardly took part in any decision-making processes. In a similar story, in Kenya, the Kenya Power and Lighting Company encouraged affirmative actions like Equal Opportunity Policies and Gender Mainstreaming Strategic Plans to attract women technicians, engineers and members of board as long ago as 2008. However, it was found that women had limited involvement in policy decisions and they did not change roles or jobs within the company due to family responsibilities. Moreover, though women did participate in technical training activities, this did not result in increased numbers of women working in the company (Cain et al. 2016). These examples show there are social and cultural barriers that impede even an otherwise conducive policy narrative.

6.7 Policy Reflections

The evidence analysed for this chapter points to some positive trend in integrating gender into electricity policies in all the three countries. In general, the policies acknowledge the need for enhancing women's participation in decision-making and their access to energy services and technologies. In India and Kenya, some of the policies also identify the need to include women through affirmative policies. However, none of the policies have explicitly acknowledged or addressed the gender inequitable access to and control over resources and benefits from electricity-related development interventions. These policies have also missed tracing the link between access to electricity and empowerment, and thus missing the opportunity to systematically and comprehensively integrating gender into policymaking. The policies, as in the past, continue to emphasise on (1) expanding and providing electricity to populations that lack electricity access, (2) making electricity services affordable to the poorest segments of the population and (3) enhancing the availability and reliability of the services.

Whilst national electricity policies may be gender neutral, developed in line with the constitutional requirements of the countries, these policies most often do not pay much attention to women's knowledge in energy management or the potential merit of engaging both genders in the supply chain. They also do not consider the inherent difference in baselines for women and men. Hence, the policies largely remain gender blind and continue to assume that benefits will trickle down equitably to both women and men.

Whilst the importance of producing gender disaggregated data to inform policymaking has been argued for a long time, national statistics continue to use household as the unit of analysis, which camouflages the different effects of electricity access on gender groups. This could also be due to the fact that socially the household is a stronger unit in South Asian countries, and government benefits are provided accordingly. However, lately, some of the sister policies have started to consider women with more prominence. For example, the Prime Minister Housing Programme in India provides subsidy to build homes with provision of electricity and other benefits in the name of the women only.

Although stronger gender link is to be found in the realm of cooking and household lighting (in part because of the legacy of the historical discourse on gender and energy), most of the electrification projects (especially grid) continue to be implemented without articulated concern for gender issues such as benefit sharing or increased opportunities for women's inclusion in supply.

The barriers for employing gender-sensitive approaches in electrification may be linked to their top-down design approach. The impression from our desk study is that there is a lack of documentation of the merit of including gender elements in electrification policies. The commitment of the national governments of the three

countries towards achieving SDG goals (particularly goals 5 and 7) should hopefully reflect evolving characteristics of engendering policy and its processes to achieve the larger goal of gender-just energy policy.

6.8 Recommendations

On the basis of our review, we put forward five policy recommendations for mainstreaming gender in the electricity policies and programmes especially in the Global South:

- First, with national electricity policies in the three study countries tend to be gender blind, more effort is needed to facilitate the inclusion and realisation of gender issues in policy, planning and practice. To increase the likelihood that governments comply with their general commitments to SDGs and SE4ALL goals, effort is required to closely monitor the extent to which investments in the electricity sector reflect gender-informed evidence-based policies and thus accommodate women's interests.
- Second, in order to obtain knowledge on the impact of electricity on gender equality, it would be worthwhile to develop an index for measuring women's empowerment in energy similar to the Women's Empowerment in Agriculture Index (WEAI), which examines women's decision-making power and empowerment in relation to men within their households (IFPRI 2012).
- Third, greater consideration should be given to incorporating women-targeted subsidy mechanism into electricity policies and regulations to significantly impact women's access to electricity for basic services as well as productive use.
- Fourth, to balance the trend that men rather than women are recruited for technical and managerial positions in electricity policy and supply, gender-balanced capacity development and recruitment principles should be encouraged through policy. For example it has been seen that a focus on induction training upon recruitment rather than pre-qualification requirements could help in reducing the exclusion of women from the sector (Winther 2008; Ulsrud et al. 2015). This is likely to strengthen women's participation in all aspects, from representation in policy to employment opportunities.
- Fifth, there is a need to focus on mitigating the risk of women's subordination in energy policies and programmes by fine-tuning electricity policies and interventions. Though there are a number of women-targeted measures such as ensuring women's access to and control of electricity, their inclusion in supply and complementary inputs to support women's economic opportunities needs to be strengthened. Hence, we suggest a stronger alignment between overall policies for gender equality and electricity, as well as harmonising electricity policies with sister policies (i.e. in other sectors like agriculture and rural development). This could help mitigate the causes for gender inequality and also help to identify how electrification could play a more effective role to combat such prejudice.

We would like to conclude that in order to address the skewed baseline opportunities that favour men, there is a need to focus on gender-equitable energy policies as well as creation of inclusive, yet diverse, opportunities for ensuring participation of women in electricity-related policies and programmes.

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