

Contents lists available at ScienceDirect

Energy Research & Social Science

journal homepage: www.elsevier.com/locate/erss



Gender audits: An approach to engendering energy policy in Nepal, Kenya and Senegal



Joy S Clancy*, Nthabiseng Mohlakoana

CSTM, University of Twente, Post Box 217, 7500 AE Enschede, the Netherlands

ARTICLE INFO

Keywords:
Gender mainstreaming
Gender audits
Energy policy
Engendering policy
Knowledge networks
Gender capacity
Mainstreaming effectiveness

ABSTRACT

Gender audits are an approach for putting gender on the policy agenda and are an alternative to gender budgets being less dependant on experts in government finance.

This paper explores the effectiveness of gender audits as an approach to mainstreaming in the energy sector which has lagged other sectors in mainstreaming gender. The assessment takes the experiences of an international network on gender and sustainable energy that aims to get gender onto the energy policy agenda. Since there is no standard audit methodology, the network developed its own.

The paper uses an analysis of qualitative data, reviews of audit reports and key informant interviews to answer two questions. As a result of gender audits, have gender issues or attending to women's particular interests been incorporated in energy policy? Did participation in an audit build the capacity of national actors to contribute to gender mainstreaming in the energy sector? Detailed data comes from network countries conducting audits: Kenya, Senegal and Nepal, with supporting evidence from 8 countries in Sub-Saharan Africa and Asia.

The gender audit methodology used is partially effective in integrating gender issues into government energy policy. Pragmatic, conceptual and political barriers to gender mainstreaming continue to operate. Adopting gender-aware policies occurs rapidly in organisations that participated in the audits. Male employees more readily accept gender policies when they see that policies also benefits men. In the audit countries, a group of national gender and energy experts has been established able to contribute to mainstreaming gender in the energy sector.

Introduction

Since the Fourth World Conference on Women, held in Beijing in 1995, gender mainstreaming has become both a goal and a methodology for achieving gender equality. As a methodology, gender mainstreaming provides a mechanism for influencing policy content, as well as the formulation and implementation processes, so that policies and programmes give equal attention to issues concerning women and men. An outcome of gender mainstreaming should be policy that better reflects women's needs and priorities, and that meeting these needs and priorities is supported by a more equitable distribution of resources. There is some concern that gender mainstreaming efforts have stalled, at least insofar as addressing gender equalities (see, for example, [1-2]). Some sectors, including the energy sector, have come later than others to mainstreaming gender, although there are signs of change [3]. The recent United Nations (UN) Sustainable Energy for All (SEforAll) and the Sustainable Development Goals (SDGs) initiatives have drawn

attention to gender and energy linkages, suggesting that paying attention to gender issues (in other words mainstreaming gender) can help reach both the broad and the specific goals set for the energy sector.

This paper reviews an approach, known as gender audits, to mainstreaming gender in energy policy adopted by an international network that focuses on gender and sustainable energy as part of its policy-influencing strategy. We draw on Moser's [4:581] definition of gender mainstreaming which is seen as a twin-track strategy involving: "the integration of women's and men's concerns (needs and interests) in all policies and projects; and, specific activities aimed at empowering women". The outcomes of the strategy are to contribute to gender equality and women's empowerment. Taking an international network that aims to influence the policy agenda as an object of research is in line with that notion that networks can play a role in transferring knowledge and helping shape discourses [5-6];. Policymaking theory suggests that problems are only added to the policy agenda when there is the knowledge available to provide solutions [7] cited in [1].

E-mail address: j.s.clancy@utwente.nl (J.S. Clancy).

^{*} Corresponding author.

The objective of the paper is to explore the effectiveness of gender audits as a methodology for mainstreaming gender in energy policy. We raise and answer two research questions: (i) as a result of gender audits, have gender issues or attending to women's particular interests been incorporated in energy policy? (ii) did participation in an audit build the capacity of national actors to contribute to gender mainstreaming in the energy sector? We first start with a brief explanation of the differences between gender budgeting and gender audits. This is followed by a description of the research approach used in this paper. We then describe the gender audit methodology used by the international network, followed by the outputs of the process. The effectiveness of the approach is then evaluated. The paper closes by positioning this paper in the typography of social science research proposed by Sovacool et al. [8].

2. Gender budgets and gender audits

There is a lack of consistency in the literature regarding the terminology used related to gender budgets. Some authors use the term 'Gender Budget Initiatives' (for example, [9]) while some use 'Gender Responsive Budgets (for example, [10]) and others use the term 'Gender Budget Audits' (for example, [11]). We use the term 'gender budgets' as a generic term that covers all these various names. Note that we view 'gender budget audits' as gender budgeting since they focus on the expenditure side of government budgets. In the following section we describe the difference between a gender budget and a gender audit as used in the context of the process we analyse in this paper. We start with describing gender budgets.

Gender mainstreaming emerged after 1995 as the most important mechanism to achieve the goals of the Beijing Platform for Action, that is, the United Nations agenda for women's empowerment with the ultimate objective of gender equality. One of the early tools for mainstreaming gender in policy was that of gender responsive budgets [10]. Gender responsive budgets focus on linking budgetary allocation of public funds with policies and programmes to advance gender equality, which distinguishes this approach from conventional government audits that focus on administrative efficiency [11] as well as by focusing on a specific group rather than the population as a whole [12]. Gender budgeting is not a single entity in terms of its methods, but a range of activities aimed at analysing whether or not the government budget advances gender equality [13]. There is no consensus on the objectives of such an exercise (for example, a specific percentage allocation by all public bodies to gender equality programmes or a shift in allocation to disadvantaged groups such as slum dwellers or remote villages). Sharp [14] considers that there are three general objectives: (i) raise awareness and understanding of gender issues and impacts of budgets and policies on those issues; (ii) make governments accountable for their budgetary policies and commitments in compliance with their commitments to the Beijing Platform for Action; and (iii) in line with those commitments, change and refine government budgets and policies to promote gender equality. Gender budgeting provides a mechanism for assessing the outputs and outcomes of government revenue and expenditure on women, men, girls and boys. A gender budget analysis can focus on any government administrative level, as well as on a specific sector or programme. Indeed, for countries with a large land mass, and a range of geographies and climates, an analysis at lower levels of administration would probably be more appropriate than one aggregated at the national level so as to reflect different types of environmental, social and economic conditions. The analysis can go beyond analysing budget documents, which set out how government revenue is to be allocated, and the audited accounts, which show what was actually spent, by looking at what the actual outputs were and their impact on

peoples' wellbeing [15].

However, while the power of gender budgeting as a tool is recognised, it has been criticised as being very dependant on specialised skills. The skills and knowledge used by economists to understand government budgets, such as Computable General Equilibrium Models used to predict the quantitative effects of a policy instrument, are considered to be beyond the capacity of many citizens and hence exclude a range of stakeholders [9]. As such, in many instances in the South, this has led to an over-reliance on external experts who do not have the capacity to identify and react to emerging opportunities at the national and local levels, as well as not having the contextual understanding of a national expert [9].

Another criticism of gender budgeting is linked to the quality and quantity of the data available for the analysis, if data are available at all. The data might not be sufficiently disaggregated or not collected in a systematic way, particularly at local levels of government. A comprehensive analysis would require data not only disaggregated by sex but also by a range of socioeconomic indicators, such as age, marital status, level of education, employment and land ownership, since outcomes will vary according to individual socioeconomic profiles [16].

Further, the lack of involvement of the grass roots in policy processes may not fit with the ethos of NGOs and civil society organisations that work with ordinary women and men. Although training materials are available to give a wider audience an understanding of the budgetary process (see for example [17]), involving a wider range of citizens can be problematic. Partly in response, an alternative approach to gender budgets, known as gender audits,² emerged that appeared to allow a more inclusive approach [18].

Gender audits are a tool to identify and analyse the factors that hinder efforts to mainstream gender in policy. Initially, conducting a gender audit was seen as a means for an organisation to carry out an internal evaluation of how gender issues were addressed in its programming portfolio and internal organizational processes [4]. The approach was taken a step further by adding an external evaluation of the organisation's policies, programmes and activities.

There is no standard procedure for conducting a gender audit. The methods used as part of an audit tend to be qualitative, including desk studies, checklists, structured interviews, case studies and focus group discussions. A gender audit identifies the specific ways in which gender issues are, or are not, addressed and also critical gender gaps in existing energy policy formulation and implementation. The process allows for the development of recommendations on creating a more gender-aware policy. A gender audit is not a financial audit. The International Labour Office (ILO3), which uses gender audits as part of its monitoring and evaluation of its gender mainstreaming approaches, considers an audit to be a social audit [19]. An audit can be held at any government administrative level, as well as at the sectoral or programme levels. It can be a learning tool for individuals, units and organisations to identify strengths and weaknesses in promoting gender equality and to identify solutions. The ILO found that an analysis at the implementation stage brought changes not only on the field level but also in cultural working practices, such as changes to working hours so that they better reflect responsibilities outside the workplace [19].

The audit methodology developed by Moser [18] uses three concepts to assess an organisation's progress with gender mainstreaming: (i) evaporation (when good policy intentions fail to be followed through

¹ http://www.un.org/womenwatch/daw/beijing/platform/plat1.htm# statement (accessed 24 March 2019).

²To avoid the association of the word 'audit' with some form of financial evaluation, which can be politically sensitive when the organisation is a government entity involved in an external evaluation, the term 'gender assessment' can be used. See for example the Asian Development Bank: https://www.adb.org/themes/gender/country-gender-assessments (accessed 2 May 2017).

³ The ILO is a United Nations agency mandated to set labour standards, develop policies and devise programmes promoting decent work for all women and men.

in practice); (ii) invisibilisation (lack of documentation about what is occurring in practice); and (iii) resistance (when gender power relations are used to block gender mainstreaming efforts). A programme or project could be analysed in terms of its gender mainstreaming in its programme design (inputs), in its implementation (outputs) and in terms of its outcomes (increased gender equality and women's empowerment) [4].

3. Gender mainstreaming in the energy sector

In this section, we give a brief background to the decision by the international network, which provides the case study for our paper, to develop a method for gender mainstreaming in the energy sector. ENERGIA is an international network on gender and sustainable energy. The network currently consists of an international secretariat, based in the Netherlands, and 38 organisations (referred to as 'partners'), encompassing Civil Society Organisations, social enterprises, universities and research institutions, in 18 countries in Asia, Africa and Europe (www.energia.org; accessed 12 August 2019).

The audit methodology was developed as part of a strategy in response to network members who were concerned about the slow progress with mainstreaming gender in their countries' energy policies [20]. Two factors were considered to contribute to the lack of attention to gender in energy policy: (i) a lack of knowledge about the significance of the gender dimension in the sector; and (ii) uncertainties about how to integrate gender into energy projects and policies. The situation was attributed to the energy sector being primarily technology-driven [21].

The underlying assumption behind ENERGIA'S methodology is that the involvement by a Ministry of Energy from the start of the audit process builds a sense of ownership by the Ministry of the final report and that this, in turn, increases the likelihood of policy implementation. This approach can be seen as in line with the 'soft incentives' approach to gender mainstreaming of voluntary compliance, which some practitioners have been advocating as an alternative to 'hard incentives' of binding and enforceable measures [22]. The hard incentives approach has been criticised for being likely to generate procedural compliance rather than any significant changes in social institutions.

Another assumption is that a team composed of national experts plus facilitators coming from the region could contribute to a feeling of it being 'the right thing to do' rather than it being seen as a requirement to adopt a particular approach imposed by outsiders. This approach required a strategy to build the capacity of a number of experts in gender and energy at the national level who could then respond to requests by governments and other energy sector organisations for support in mainstreaming gender.

4. Research approach

This paper assesses the effectiveness of gender audits as a method for gender mainstreaming in the energy sector. The research presented here aimed to answer two questions: (i) as a result of gender audits, have gender issues or attending to women's particular interests been incorporated in energy policy? (ii) did participation in an audit build the capacity of national actors to contribute to gender mainstreaming in the energy sector?

As the object of our research, we analysed the outcomes of the audit methodology developed and used by ENERGIA, the organisation described in Section 3.

Our timeframe for the review is the period 2005 to 2011, when ENERGIA was active in developing and consolidating a gender audit methodology. ENERGIA has conducted gender audits in 20 countries in Africa and Asia which were held during two time periods: 2005–7 and 2007–11.⁴ The first period marks the development of the gender audit approach. Audits were held in three countries during this period: Kenya, Senegal and Botswana. Another nine countries in Sub-Saharan

Africa took part in capacity building workshops which were intended to build a critical mass of national experts [21]. The second period enabled testing and refinement of the approach in another eight countries. The gender audits activities ended in 2011.

Our data gathering took place in 2015 and 2016. We considered that a four-year gap between the completion of the gender audits and our data gathering would allow sufficient time for the impacts of the audits to become visible in policy and practice. We used a mixed methods approach for data gathering. We started with a desk review of reports on the gender audits implemented by ENERGIA between 2005 and 2011. The review also included reports from the World Bank's Africa Renewable Energy Access Program (AFREA) and Asian Development Bank in which these organisations have undertaken gender mainstreaming in energy policies.⁵ The review was used to develop a checklist of questions for interviews with key informants. Qualitative data were collected from 76 key informants in either faceto-face interviews (33 informants in 8 countries) or roundtable workshops (43 participants) in Nepal, Senegal and Kenya. The key informants came from countries that had been involved in the development of the audit methodology (Kenya, Botswana and Senegal) plus countries which had used the methodology (Nepal, Tanzania, Sri Lanka, Philippines, Zambia and Lesotho). Purposive sampling was used to select key informants based on the criteria that they had either participated in the audits or had worked with organisations in the energy sector in the three focus countries of Nepal, Senegal and Kenya. These three countries were selected for more detailed data gathering since they represent different facets of ENERGIA's network and involvement in the audits: (i) different global regions Africa (Anglophone and Francophone) and Asia; and (ii) different stages of involvement with audit methodology development: Senegal and Kenya were involved in the development of the strategy (2005-7) while Nepal used a strategy which had been considered to work (post-2007). The other countries selected fell into two categories: network partners active in engendering energy policy since an audit (Philippines, Sri Lanka, Botswana and Tanzania) and countries where network partners had been less active (Lesotho and Zambia).

We use Moser's twin-track strategy as the basis for the analysis of the effectiveness of gender audits as a methodology for supporting mainstreaming. The first element is the influence on policy: have gender issues or attention to women's particular interests been incorporated in energy policy as a result of the gender audit in the three focus countries? To answer this question, we analysed documents in the public domain produced by each country's Ministry of Energy and the national utility. We have restricted the focus to these two organisations since these were identified as the primary actors to be influenced by the audit. We use a broad interpretation of the term 'policy' to include any written statement of regulations, plans or strategies to act by an entity. We interpret actions as encompassing not only those in respect of ensuring clean energy availability and enabling gender equitable access to meet women and men's daily needs (as implied in SDG7) but also those that bring changes to organisational behaviour making it more genderaware, for example, introducing employment policies and implementation practices that reflect greater gender equity and sensitivity.

The second element of Moser's strategy considers activities aimed at empowering women including those which support women's participation in decision-making. Capacity building and working with men for gender equality are considered here as activities which contribute to women's influence on decision-making. This element of Moser's strategy links to our second research question as to whether or not participation in the audit process builds the capacity of national actors to contribute to gender mainstreaming in the energy sector.

⁴ These two time periods coincide with the organisation's funding cycles.

⁵ A list of documents reviewed can be found in [23].

j. Recognition of gender energy needs

k. Integrated energy planning

Table 1Feenstra's framework of enabling conditions for developing a gender-aware¹ energy policy (Source: [24]).

Enabling Environment for Engendering Energy Policy		
Dimension	Description	
a.Participatory planning	An approach involving a range of actors (including civil society) is considered more likely to create a greater opportunity for women's voices to be heard than traditional approaches to policymaking.	
b. Gender Methodology	Involves having a gender strategy, collecting sex-disaggregated data and conducting gender analyses to develop a gender-aware energy policy.	
c. Legislation on Gender Equality	Form and scope: e.g. Is gender equality enshrined in the constitution?	
d. Political commitment	Putting pledges into practice: e.g. the existence of a National Gender Policy.	
e. Institutional support	This support can come from within government, for example a Ministry for Women's Affairs or a Gender Ministry, or from civil society, for example, NGOs active in gender and energy.	
f. Financial commitment	Allocation of sufficient resources to implement gender-aware policies	
Formulation Process towards realising a Gender-aware		
Energy Policy		
g. Gender-disaggregated data	Sex-disaggregated data are available	
h. Gender-mainstreaming	Recognise that policy (particularly for energy) is gender blind. Does any ministry carry out gender budgeting? Does women's/gender ministry provide support?	
i. Participation	Women and men as energy end-users are involved in the policy formulation process	

energy and education; energy and small industry?

different practical, productive and strategic energy needs.

We were also interested in which contextual factors were supporting or hindering mainstreaming in energy policy. To identify the contextual factors in the three focus countries, we used Feenstra's framework of enabling conditions for developing a gender-aware energy policy (Table 1) [24].

Identifying impacts and attributing causality to a specific activity in a complex environment, such as policymaking, is difficult methodologically. Further, the organisations that carried out the audits were not required to monitor whether energy policies became more genderaware, and this influences the data available. Furthermore, impacts can take time to emerge, as appears to have been the case with the closely related methodology of gender budget exercises [26]. Therefore, the evidence provided, that ENERGIA's gender audits of energy policy have brought change and incorporated gender issues into energy policy, should be seen as indicative.

5. ENERGIA's gender audit methodology

Given that there was no standard gender audit methodology, ENERGIA developed its own approach. ENERGIA's approach drew on a stepwise method developed in South Africa as a response to earlier setbacks with gender mainstreaming in policy. The South Africa process involves:

- (i) An analysis of the situation of women, men, girls and boys in a given sector;
- (ii) Assessing the extent to which sector policy addresses the situation in Step (i);
- (iii) An assessment as to whether budget allocations are adequate to implement the gender-responsive policy;
- (iv) Monitoring of whether the money was spent as planned, what was delivered and to whom;
- (v) Assessing whether the policy as implemented changed the situation described in Step (i) in the direction of greater gender equality [10].

The audit process developed by ENERGIA is spread over several months and involves an eight-step process (see Table 2 - the legend shows the links between each step and Feenstra's enabling conditions).

Before the process can begin, a gender-balanced audit team consisting of a small number of national experts is assembled by a facilitator supported by ENERGIA's national network member together with a representative from the Ministry responsible for energy. An objective of the audit is to build capacity to embed gender approaches in national energy planning, and this is reflected in the composition of the team. Therefore, team members come from energy sector organisations (such as utilities, agencies, companies and NGOs) as well as a range of government departments (for example, the Finance Ministry and the Statistical Office) and academia. The members are chosen to ensure a range of technical backgrounds and expertise such as a gender specialist, energy planner, budget analyst, statistician, economist and policy analyst.

A clear statement exists recognising (i) women's role in energy provision and use and (ii) that women and men have

Is there any attempt to integrate supply and demand sides? Any cross-ministry cooperation: e.g. energy and health;

The facilitator begins by building the capacity of the team, using a training programme developed by ENERGIA, 6 to collect the appropriate sex-disaggregated data and to conduct a gender analysis of the data. A number of national consultants also participated in the training sessions in order to build the national capacity of people with knowledge about gender and energy who would then be available to participate in future gender-mainstreaming activities.

The outputs of such an audit include a gender assessment of the existing energy policies and programmes in the energy sector in order to (i) identify and analyse the factors that hinder efforts to mainstream gender in energy policies and programmes, and (ii) identify and assess gender gaps in energy policies. The audit process starts with forming a broad picture of the gender-enabling environment together with the energy sector policy framework including the system profile, the supply- and demand-side characteristics and policy formulation processes. An inventory is created of energy policy documents which are then analysed to assess the extent of their gender awareness, in which the availability of sex-disaggregated data is considered a fundamental aspect. Identifying financial commitments provides an important

¹ There is no universally agreed definition of what constitutes a gender-aware energy policy. We draw on the definition of Clancy and Feenstra [25] in which a gender-aware energy policy is one that: (i) recognises that women and men have different energy dynamics (roles in the household, decision-making areas, energy needs, responses to crises or coping mechanisms); (ii) makes available energy technologies and services that match those dynamics; and (iii) employs appropriate policy instruments (such as taxation) to provide an enabling environment.

⁶The training programme consists of five training modules, which are available in English and French, grouped together under the title: The Gender Face of Energy. The five modules are: The Concepts in Gender and Energy; Gender Tools for Energy Projects; Engendering Energy Policy; Gender and Energy Advocacy; Engendering Energy Project Proposal Development: Capacity Building of Organisations; Project Proposal Development.

Table 2 ENERGIA's audit methodology.

Step	Process	Output
1	Background review of national gender and energy enabling framework	Gender situational analysis: identification of gender organisations and of government directives, mandates, policies, and legislation on gender. Inventory of energy production/supply by source, energy demand and consumption by sector, the access and affordability of energy services; energy sector organisations including employment profiles; energy policy formulation and implementation processes.
2	Energy Policy Review	Gender awareness of energy policy based on quick-scan document analysis using keywords. Energy statistics, data and indicators - extent of sex-disaggregation.
3	Gender Budget Analysis	Extent of budget allocation to energy programmes which recognise the differentiated benefits for women and men.
4	Gender Organisational Assessment	Capacity assessment of the Ministry of Energy to mainstream gender. Capacity assessment of gender institutions to support gender mainstreaming in the energy sector.
5	Key Stakeholders Analysis	Analysing perceptions about gender and the national energy policy by key stakeholders in the energy sector. Identifying the types of support that key stakeholders could provide to support gender mainstreaming in energy policy.
6	Pre-validation - SWOT Analysis	Identifying strengths, weaknesses, opportunities and threats of gender mainstreaming in energy policy.
7	Gender and Energy Action Plan (GAP)	Agreeing on goals, outcomes, indicators, outputs, activities and responsibilities.
8	Validation and Dissemination	Ownership and endorsement of the GAP by the Ministry of Energy and key stakeholders.

Step 1 = Feenstra's Dimensions a,b,c,d,e; Step 2 = g_i ; Step 3 = f_i h; Step 4 = e; Step 5 = e; Step 6 and 7 = e; Step 8 = e.\.

indicator of moving beyond a statement of intent to providing the resources for implementation. The analysis also includes an assessment of the institutional capacity of ministries to implement gender-mainstreaming strategies as well as the links between gender, energy and broader national development objectives such as poverty reduction strategies, Sustainable Development Goals (SDGs) and Sustainable Energy for All. An assumption is that women's voices are more likely to be heard in policymaking if a broader range of actors are involved in policy formulation. The actors involved are identified through a stakeholder analysis which includes identifying those currently not involved in energy policy formulation who could support gender mainstreaming activities. The final steps of the audit include developing strategies for gender mainstreaming in the national context, and these are compiled into a Gender Action Plan (GAP). The GAP and a report of the gender analysis of existing energy policies are presented to the Ministry of Energy. The final step is the validation workshop.

The validation workshop aims to bring together a cross-section of actors from organisations in the public and private energy sectors, in particular the Ministry of Energy, as well as civil society organisations with an interest in energy, to reach a consensus on an approach for developing a gender-aware energy policy. The workshop provides recommendations on actions with specific targets and time frames that are needed to engender the policies and, most importantly, for implementation. The assumption is that, through the act of participation rather than as a passive recipient of a report, the Ministry of Energy will assume ownership of the audit findings and implement them.

The initial audits, which were used to develop, test and refine the methodology, were held in Kenya, Botswana and Senegal. A summary of the findings from these audits is provided in Appendix 1. Seven more audits of national policies were held in Asia (India, Philippines and Pakistan) and in Africa (Ghana, Zambia, Lesotho and Nigeria). Each country chose to focus on a specific aspect considered relevant to their own situation. For example, Ghana looked at gender in organisations while Pakistan provided a gender review of the draft rural electrification policy.

Initially, ENERGIA's audit methodology did not include the third and fourth steps of the five-step method from South Africa outlined above. However, in the second phase, the audit in India did include these by carrying out a gender budget analysis of the Ministry of New and Renewable Energy's budget. The team in India took the view that a complete audit of the energy sector in a country the size and complexity of India was not feasible and confined itself to the Ministry of New and Renewable Energy.

Another significant difference between Moser's methodology and ENERGIA's, is that Moser recommends an internal audit as a first step followed by the former an external audit whereas ENERGIA uses only the external audit.

6. Influences of gender audits in the Energia network

In this section, we present evidence on the effectiveness of gender audits by assessing the influence that they have had on energy policy. Drawing on Moser's twin-track strategy, we start with the influence a gender audit has as a gender-mainstreaming approach, which can be divided into two main categories: the direct effects of the audit and the indirect effects of the audit process. We finish with evidence about experiences with the approach itself.

6.1. Direct effects

Attributing a policy change to a single action is difficult to prove. However, our key informants were able to identify instances in which the audits, or the recommendations in the validation workshop, fed into policy statements which address gender issues. For example, in Kenya, the 2004 Energy Policy had very few sentences on gender mainstreaming, whereas the revised policy in 2011 incorporated gender issues. However, the introduction of the broader Gender Policy in 2011 will have had a significant influence on this energy policy change (as Feenstra's framework indicates that the existence of such a policy is an enabling factor). In Senegal, the Renewable Energy Policy includes women as a target group, which is linked to a member of the audit team becoming Minister for Renewable Energy.

We were also able to identify strategies which incorporate gender awareness in their approach. In Botswana, the Ministry of Energy carried out a survey on household demand-side management in which questions were asked on energy use according to gender. In Uganda, according to a key informant, the Bureau of Statistics has been asked to collect sex-disaggregated data for the energy sector.⁷

Our respondents specifically mentioned that participation in the audits had led to the development of baselines for project monitoring, the implementation of roadmaps (e.g. a Gender Action Plan) and the identification of drivers of gender-mainstreaming processes.

6.2. Indirect effects

The indirect effects of the audit process, at least on the organisations involved in our focus countries, included the creation of enabling conditions and opportunities that have led to the organisations

 $^{^7}$ Uganda was not involved in an audit process, but was one of the countries where a capacity building workshop was held. Participation by a civil servant from the Ministry of Energy was attributed to the request for the data.

adopting a gender approach in employment policy and in project design and implementation.

A number of organisations that participated in the audits have introduced policies related to gender issues in respect of employment policy and working practices. For example, the Kenya Power and Light Company (KPLC) has introduced a Sexual Harassment Policy. The Botswana Power Company (BPC) has a gender policy which includes recruitment adverts encouraging women to apply, and the company runs a positive discrimination policy. A key factor in getting male employees to accept the policy has been that the gender policy also grants men paternity leave – so they see that such a policy also benefits men (i.e. that 'gender' is not another word for 'women'). A switch from focusing on 'women' to 'gender' is reported to "make men more comfortable with addressing issues" (NGO informant).

The training of national experts on gender and energy has built skills and knowledge about gender issues in the energy sector and provided tools for later use. These experts have continued to use their skills in other work and in mainstreaming gender in their own organisations. For example, in Senegal, after participating in the gender audit, GiZ PERACOD (Promote Rural Electrification and a Sustainable Supply of Domestic Fuel) integrated gender approaches in their programmes. A respondent from Botswana commented: Participation in [the training programme] provided me with the skills and confidence to conduct a gender mainstreaming exercise in my own organisation.

Gender desks or focal points have been established in a number of ministries of energy after they participated in gender audits (Kenya, Senegal, Nigeria, Botswana) [20], as well as in other line agencies such as the Alternative Energy Promotion Centre (AEPC) in Nepal. Nevertheless, one respondent commented that there was no specific budget allocation, which hinders any activities to address gender issues.

6.3. The approach

Key informants and participants in roundtable discussions in our three focus countries were positive about working with the gender audit approach. In their opinion, the approach is flexible and can be adapted to local conditions, including to lower levels of government. The workshop was seen as creating a space allowing discussion of issues related to gender, including consultation with stakeholders to identify constraints and propose solutions. Participation in an audit can increase awareness of the benefits for policy planning of sex-disaggregated data.

"The gender audits enable the involvement of people within the organisation, which is more effective and supports the transformation of the institution" Roundtable participants in Kenya. 17 April 2015.

"Gender mainstreaming enables strong coordination efforts with local, district and national government levels" Roundtable participants in Nepal. 28 August 2015.

"Political actors continue to be in contact with the audit team on gender issues relating to energy, which can have a positive impact on energy policy" Senegal fieldwork report 2015.

Another aspect of ENERGIA's strategy was to hold training workshops in a range of partner countries, not only those where audits were held. The workshops had two objectives. The first was to increase awareness of the need for gender mainstreaming in the energy sector. Our respondents were able to identify individuals who play a role in energy policy formulation who showed a greater awareness of gender issues in the energy sector after participating in the audit workshop or the training. "The Commissioner for Energy approached me about conducting a gender audit after he had participated in the training workshop" (key informant).

The second, in order to reduce the reliance on external experts, was to create a number of people with a 'tool box' of methods on how to mainstream who could respond to requests from government and energy sector organisations. In Phase 1, 262 people (118 men and 144 women) participated in 12 training workshops (one in each of the participating countries) [21]. In the three focus countries, the numbers participating were 9 women and 9 men in Kenya, 12 women and 14 men in Senegal and, in Nepal, 32 participants (12 male and 20 female) were trained on gender concepts and mainstreaming approaches [27].

The audit in India also included a simplified gender budget analysis in which participants categorised different programmes based on their effectiveness in addressing women's needs: as specifically relevant for women; relevant for both men and women; partially relevant for women; or not directly relevant for women [28]. There are a number of weaknesses in this approach, such as no distinction being made between capital outlay and revenue expenditure, and the effectiveness of a particular expenditure not being evaluated. Nevertheless, the analysis can be seen as a starting point for discussion and raising awareness about gender issues.

7. Discussion

In this section, we answer our two research questions and identify which contextual factors influence the effectiveness of gender audits as a mainstreaming methodology.

7.1. Mainstreaming gender into energy policy

In answering our first question as to whether or not gender issues, or attention to women's particular interests, have been incorporated in energy policy as a result of ENERGIA's gender audits, the conclusion is that it has started. It appears that changes to policy take time. A general conclusion from the first phase of the ENERGIA audits was that: "overall, gender perspectives are not articulated in policy documents and are unlikely to be considered relevant when planning energy programmes or projects" [21:35]. At least by 2011 in Kenya, gender-aware text had begun to appear in government policy statements. Similar findings in respect of time interludes between mainstreaming actions and policy change are reported regarding mainstreaming in climate change, an issue with a strong energy link [26].

We find that there continue to be barriers to mainstreaming in the energy sector that gender audits can help to remove but not in isolation. Payne considers that these barriers can be categorised as pragmatic, conceptual or political [1]. The conceptual barriers explain the continuance of pragmatic barriers while, at the same time, they also both underpin and reflect political barriers. In Feenstra's framework, 'political commitment' is one of the conditions for developing a genderaware policy [24].

The **pragmatic barriers** reflect the level of resources required for successful formulation and implementation of gender equality policies. In our analysis, we consider these to include the lack of sex-disaggregated data and the lack of financial resources. Conducting an audit helped highlight the importance of having the right data. This issue should be resolved in the short term since reporting by governments for both SEforAll and the SDGs requires sex-disaggregated data.

Technical support and financial support to a Ministry for implementation and developing frameworks can also help. However, in ENERGIA's programme, there was no budget allocated for follow-up activities. As a consequence, with a few notable exceptions (Kenya, Botswana and Ghana), there has been little noticeable activity to support engendering energy policy. Several respondents cited the lack of a

⁸An assessment aiming to identify commitments towards gender equality and women's empowerment undertook a content analysis of 45 documents containing approved energy policies, plans or strategies by 29 Sub-Saharan national governments found that, as of 2017, 32 (71%) documents included the words 'women and/or gender' [3]. Whether any of these inclusions are a consequence of the ENERGIA initiatives is unknown.

budget for follow-up activities as problematic for implementing the Gender Action Plan.

Conceptual barriers are related to the lack of a clear understanding of the concept of gender: it can easily be confused with biological distinctions and overlooks its social construction which creates gender inequality. The lack of understanding of gender can reduce energy policy to addressing only the gender division of labour at the level of making tasks lighter and shorter. While this is to be welcomed, it does not address the underlying issues of "who does what and why?", which is needed in order to bring about gender equality, an aim of gender mainstreaming. ENERGIA's gender audits aimed to bring gender equality into the energy policy arena. The creation of national gender and energy experts can help to overcome this barrier since they can articulate the gender dimension of energy in the local context. This national expression of gender ideas helps overcome the barrier to incorporating gender as a planning concept that sometimes occurs because gender can be seen as an externally imposed "Western" concept at odds with local values and norms. Gender mainstreaming becomes a voluntary action rather than a coercive one.

In terms of **political barriers**, Payne's formulation considers that these are underpinned by conceptual barriers. We consider that the way in which gender issues are framed in the energy sector is an example of this linkage. Gender mainstreaming in the energy sector has tended to focus on women – in part because, at the household level, energy management is generally seen as women's responsibility. We would highlight two consequences of this approach. When the framing is in terms of women's household responsibilities – men are left out of the picture, and this tends to distract away from the relational aspects of gender. This loses sight of the fact that it is primarily men who are left to implement policy and, if this is with a weak understanding of gender concepts, the risk is that inequalities are strengthened by not addressing gender relations.

However, the audit methodology design described here did not fully understand the political dimension of policymaking. The handing over of a document, no matter how well formulated by all the key stakeholders, is not enough to change policy. There is a need for influential stakeholders to demand policy change and the implementation of changes recommended by a gender audit. Continued pressure [29] and support by technical experts with backgrounds in gender and energy are needed [7]. The logic employed in the energy audit was that a more gender-aware energy policy would develop as a consequence of the Ministry of Energy participating in the audit process, in particular in the last step - the validation workshop. At this point, it was thought, the Ministry would assume ownership of the Gender Action Plan and proceed to implement it. However, ministries may see the output of the exercise very differently: not as a helpful tool but as an overt criticism of not implementing general government policy (key informant interview). As a consequence, the audit report and its recommendations are not seen as an opportunity to act but something to keep from public view, which the Ministry, as owner of the document, is able to do. If that is the case, and an audit report does not enter the public domain, a valuable resource is lost.

Gender audits had initially evolved as an internal process in which an organisation evaluated how gender issues were addressed in their programme portfolio and internal organizational processes and only later was an external evaluation added. The methodology adopted by ENERGIA omitted the internal evaluation. As such, we would argue that the target energy ministry might more readily accept the audit outcomes if they had already been through the internal evaluation.

A process, which involves trying to get governmental and civil society organisations to work together, can be problematic if the actors are not familiar with each other or when they are working in situations where there is distrust between the government and civil society organisations. This was reported to be the case in Zimbabwe, where a gender budget exercise proved difficult to carry out due to contentious relations between the government and civil society organisations [29].

One of our respondents considered this to be a political barrier in one of ENERGIA's audits.

7.2. Building national capacity

We can be positive in answer to our second research question: participation in an audit contributes to building national-level capacity in gender and energy. In our three focus countries, groups of national gender and energy experts have been established. An indication of the effectiveness of these groups comes from some of our key informants who participated in the training and audits nearly 10 years ago. They were able to report with confidence that they have benefited professionally from the acquired knowledge, skills and tools. Moreover, the respondents are able to cite occasions when they have used these skills. This can be seen as an indicator that national actors can take control of the mainstreaming process. Building capacity, including the development of tools for gender mainstreaming, has been identified as a key factor in involving a broader range of citizens by a number of practitioners (see, for example, [30].

ENERGIA's development of a methodology complete with a toolkit that contributes to gender mainstreaming in the energy sector can be considered a success in that it extends the focus to a sector not usually associated with 'women's issues' (unlike education and health) [26]. This also fits well with the SDGs strategy that the goals should be mutually reinforcing: Goal 7 (energy) has to support Goal 5 (achieving gender equality).

In the future, being clear about the objectives of a gender audit, that it is a tool that can help meet policy objectives rather than an opportunity for identifying policy gaps, might boost the success in achieving a gender-aware energy policy.

7.3. Contextual issues

If we look at the elements in Feenstra's framework, we see that some of the elements are present in our three focus countries at the policy level; for example, political commitment to gender (legislation in Kenya and Senegal and policy statements on social inclusion in Nepal). However, many elements of the framework are missing.

Institutional commitment to gender is fragmented. Renewable energy NGOs, which could be considered the natural home of genderaware technologies and approaches, use gender-neutral terms such as 'people' and 'communities' and see women's energy needs primarily as 'cooking'. NGOs involved with energy seem not to engage with the ministries responsible for gender equality. Indeed, none of ENERGIA's gender audits, which were usually coordinated by an NGO involved in the energy sector, included representatives of the Ministry for Women/ Gender in the audit process, either as members of the audit team or as participants in the validation workshop. This involvement by Ministries for Women/Gender in mainstreaming in the energy sector is one of Feenstra's components of an enabling environment. However, in our focus countries, with the exception of Senegal, there seems to have been very little involvement of Women/Gender Ministries in the energy sector. In Kenya, the Women's Bureau was tasked with collecting sexdisaggregated data. However, the Bureau was understaffed and underresourced with limited authority over other ministries where gender desks were reported to be non-functional. This seems to fit a global

Although policies might appear to have changed on paper, it has not been possible to identify, in the countries surveyed, any budget allocations for gender mainstreaming in the energy sector. Kabeer considers the allocation of financial resources a key indicator of whether or not a government's commitment to addressing gender issues is 'rhetoric or reality' [31: 220] and this also forms part of Feenstra's enabling environment. A successful change in energy policy as a result of a gender budget process, albeit independent of ENERGIA's audits, to reflect women's energy needs has been reported. Here, the South

African Women's Budget Initiative⁹ successfully made the case for paraffin, a basic cooking and lighting fuel used by women on low incomes, to be zero rated for sales tax ([32].

Even if a policy has been mainstreamed, this is no guarantee that it will be implemented. Political commitment to putting pledges into practice is one the dimensions of Feenstra's enabling environment for gender mainstreaming in policy (see Table 1). We would argue that political commitment also requires political stability. In Ghana and Senegal, two countries in our analysis, policy implementation was brought to a halt during elections. Elsewhere, the political situation in Philippines hindered the validation of the audit report [20]. When a new government takes office, it can choose to disregard the plans of the previous government and start again with a new, untested implementation process (an example of policy evaporation). A similar effect might result from elections in donor countries bringing a change of government from one which supports gender mainstreaming in its target countries to one that does not see it as a priority.

Participation by women and men, as end-users, was one of the elements identified by Feenstra that could contribute to creating a more gender-aware energy policy [20]. Muchabaiwa cites examples in Zimbabwe of involving women and children in helping identify budgetary priorities that meet their needs [29]. However, none of the ENERGIA audits reviewed appeared to involve users. On a more positive note, including a broader range of actors at the validation workshop stage is at least opening up the opportunity for a range of voices to be heard. Some thought needs to be given as to how this more inclusive approach could be realised. The move towards decentralisation to lower levels of administration in policy implementation could allow greater involvement by rural people and low-income urban households in the policy formulation and implementation process.

8. Conclusions

This paper has explored the effectiveness of gender audits as an approach to gender mainstreaming in the context of the energy sector through an assessment based on the experiences of an international network on gender and sustainable energy. We have drawn on detailed data from Kenya, Senegal and Nepal, with supporting evidence from 17 countries in Sub-Saharan Africa and Asia where the network has a member organisation that has been involved in gender audits in the energy sector.

This paper aimed to answer two questions which were stated as follows: First, as a result of gender audits, have gender issues or attending to women's particular interests been incorporated in energy policy? Second, did participation in an audit build the capacity of national actors to contribute to gender mainstreaming in the energy sector?

Our research shows that there are direct and indirect effects of the audit process, at least from those conducted by the organisations in our focus countries. The direct effects include an increased focus on gender issues in energy policy and in the strategy documents of government departments that participated in gender audits and the training workshops. Some of the indirect effects include the creation of enabling conditions and opportunities that can facilitate organisations in adopting a gender approach in employment policy and in project design and implementation.

As an overall conclusion, we can say that the evidence shows that, in terms of effectiveness, gender audits work well up to a point, but not always in the ways that had been initially envisaged. The evidence shows that while it might take time for national policy to mainstream gender, changes in organisational behaviour in energy sector

organisations have been quicker to materialise.

We would conclude that, while there are advantages in using the gender audit approach, there needs to be a removal of conceptual and political barriers for this approach to contribute more effectively to gender equality. Overall, it was clear from our focus countries that political commitment and institutional support play important roles in developing a gender-aware policy and in facilitating its implementation.

We acknowledge that this paper is based on qualitative data from only three countries, and that this therefore limits generalisability. A recommendation would be for further research which would enable a more detailed analysis of the other countries where gender audits of the energy sector have been made. Nevertheless, we consider that this paper responds to the call for energy social science research to "think about policy/practitioner applications when developing their research objectives" (Sovacool et al., 2018:14). Sovacool et al. (2018) propose a typography of energy social science research and we consider that our research findings fall within the Edison quadrant: socially useful but not advancing knowledge.

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

The authors would like to thank our colleagues Yacine Diagne Gueye, Lydia Muchiri and Indira Shakya who contributed respectively to the data gathering in Senegal, Kenya and Nepal. We would also like to thank all the participants in the workshops and our interviewees. The paper is based on a wider study commissioned by ENERGIA with financial support from the UK's Department for International Development (DFID).

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.erss.2019.101378.

Appendix 1

Summary of findings from Gender Audits from Kenya, Senegal and Nepal[21,32]

Gender issues and gaps at the institutional and political level

- At the macro-level there is a political will to mainstream gender, e.g.
 inclusion of gender in development plans and bills of rights.
 However, macro-level intentions are not being translated into
 gender actions at the sectoral level because policymakers lack the
 knowledge on how to do it.
- The goals, objectives and activities of many of the organisations analysed do not explicitly provide for gender equality, gender equity or the empowerment of women.
- Institutional support for engendering energy policy is increasing, but awareness of gender issues is still low with limited recognition of gender analysis as a planning tool and of gender mainstreaming strategies and action plans.
- Most of the organisations had little contact with the Gender/ Women's Affairs Ministry or civil society organisations to discuss gender as a concept, or the importance of gender mainstreaming.
- The management of energy sector organisations, particularly the decision-making top positions, are domination by men, and there is a lack of women working in energy studies at high-level learning institutions.

⁹ One of the earliest experiences with advocating gender mainstreaming in the energy sector was in South Africa where women had been involved in trying to influence the first post-apartheid Energy White Paper [30].

 Although there were Gender Officers in the Ministries of Energy, the position requires more focused activities and deliverables.

Gender issues and gaps at the policy level

- Overall, gender perspectives are not articulated in policy documents and are unlikely to be considered relevant when planning energy programmes or projects.
- There is limited availability of gender-disaggregated data on energy development and use.
- There have been no appropriate consultations on the needs of men and of women during the formulation of energy policies. The majority of those who took part in the formulation process were male, there was no proper assessment of women's energy needs.
- A major constraint faced by ministries responsible for energy when formulating policy is that the staff involved in the process lack the capacity to deal with gender issues. Gender experts are not part of energy policy processes.

Gender issues and gaps linked to resource mobilisation

- There is an absence of gender-disaggregated data that would inform national energy budgets. The financial resource data used at the higher levels of decision and policy making are not disaggregated by gender.
- There is lack of financial resources in terms of loans and grants to support gender programmes and policies.

References

- S. Payne, "Beijing fifteen years on: the persistence of barriers to gender mainstreaming in health policy, Soc. Polit 18 (4) (2011) 515–542.
- [2] M. Alston, "Gender mainstreaming and climate change, Women Stud. Int. Forum 47 (2014) 287–294
- [3] M. Prebble, A. Rojas, Energizing equality: sub-Saharan Africa's integration of gender equality principles in national energy policies and frameworks, Gland, Switzerland: International Union For Conservation of Nature (IUCN), (2018).
- [4] C. Moser, Has gender mainstreaming failed, Int. Feminist J. Politics 7 (4) (2005) 576–590, https://doi.org/10.1080/14616740500284573.
- [5] E. Adler, P. Haas, Conclusion: epistemic communities, world order, and the creation of a reflective research program, Int. Organ 46 (1) (1992) 367–390, https://doi.org/ 10.1017/S0020818300001533.
- [6] R. Hulme, "Policy transfer and the internationalisation of social policy, Social Policy Society 4 (4) (2005) 417–425, https://doi.org/10.1017/S1474746405002605.
- [7] J. Kingdon, Agendas, Alternatives and Public Policies, New York: Longman, 1995.
- [8] B.K. Sovacool, J. Axsen, S. Sorrell, Promoting novelty, rigor, and style in energy social science: towards codes of practice for appropriate methods and research design, ERSS 45 (2018) 12–42.
- [9] H.H. Balmori, "Gender and budgets: a practical tool to advance towards equity, Bridge Issue 12: Gender and Budgets. Brighton, UK: Institute of Development Studies (2003)
- [10] D. Budlender, G. Hewitt, Engendering Budgets: A Practitioner's Guide to Understanding and Implementing Gender-Responsive Budgets, London: The Commonwealth Secretariat, 2003.
- [11] R. Sharp, The economics and politics of auditing government budgets for their gender impacts, Hawke Institute Working Paper Series No 3, University of South

- Australia, Magill, South Australia, 2000.
- [12] UNIFEM, Introduction: gender budget analysis and accountability to women, in: K. Judd (Ed.), Gender Budget Initiatives: Strategies, Concepts and Experiences. High Level International Conference 'Strengthening Economic and Financial Governance Through Gender Responsive Budgeting' Brussels, 16-18 October 2001, United Nations Development Fund for Women (UNIFEM), New York., 2002.
- [13] Budlender, D. (2009), Ten-Country overview report. integrating gender-responsive budgeting into the aid effectiveness agenda. New York: UNIFEM. http://www.genderbudgets.org/index.php?option = com_joomdoc&view = documents&path = suggested-readings/integrating-gender-responsive-budgeting-into-the-aideffectiveness-agenda-reports&Itemid = 587.
- [14] R. Sharp, Moving forward: multiple strategies and guiding goals, in: K. Judd (Ed.), Gender Budget Initiatives: Strategies, Concepts and Experiences. High Level International Conference 'Strengthening Economic and Financial Governance Through Gender Responsive Budgeting' Brussels, 16-18 October 2001, United Nations Development Fund for Women (UNIFEM), New York, 2002.
- [15] D. Elson, Gender responsive budget initiatives: key dimensions and practical examples, in: K. Judd (Ed.), Gender Budget Initiatives: Strategies, Concepts and Experiences. High Level International Conference 'Strengthening Economic and Financial Governance Through Gender Responsive Budgeting' Brussels, 16-18 October 2001, United Nations Development Fund for Women (UNIFEM), New York, 2002.
- [16] ADB, Delivering Results and Gender: Promoting Women's Empowerment through Gender Responsive Budgeting in Malaysia, Manila, Philippines: Asian Development Bank (ADB), 2013.
- [17] D. Kadiri, Training Manual on Gender Budget Analysis, Lagos, Nigeria: Development Initiatives Network, 2006.
- [18] C.O.N. Moser, An Introduction to Gender Audit Methodology: Its Design and Implementation in DFID Malawi, Overseas Development Institute, London, 2005.
- [19] ILO (undated). ILO Participatory Gender Audit. Geneva: Bureau for Gender Equality, International Labour Office of the ILO.
- [20] A Barnett, V. Groverman, C. Wille, ETC Energy Access Evaluation Final Report, The Policy Practice, Brighton, UK, 2010.
- [21] ENERGIA, Turning Information into Empowerment: Strengthening Gender and Energy Networking in Africa, (2008) Report for TIE-ENERGIA project. Intelligent Energy Europe.
- [22] N. Holvoet, L. Inberg, "Multiple pathways to gender sensitive budget support in the education sector. Analysing the Effectiveness of Sex Disaggregated Indicators in the PAF and Gender Working Groups in (education) Budget Support to Sub-Saharan Africa Countries", 14th EADI General Conference, 23-26 June 2014, Bonn, 2014.
- [23] J. Clancy, N. Mohlakoana, Y. Diagne Gueyewith Muchiri, L. and Shakya, L.), Mainstreaming Gender in Energy Sector Practice and Policy: Lessons from the Energia International Network, ENERGIA Gender and Energy Research Programme, ENERGIA, The Hague, 2016, pp. 1–74 Commissioned Study for.
- [24] M. Feenstra, Towards a Gender-Aware Energy Policy, Masters Thesis University of Twente, 2002.
- [25] J. Clancy, M Feenstra, How to Engender Energy Policy, ENERGIA, 2006.
- [26] E. Combaz, Impact of Gender-Responsive Budgeting. GSDRC Helpdesk Research Report. London, Department for International Development (DFID), 2013.
- [27] I. Shakya, Round-Table Discussions On Gender Approaches: Nepal, ENERGIA, 2015.
- [28] IRADe, Gender Analysis of Renewable Energy in India: Present Status, Issues, Approaches and New Initiatives, Leusden, The Netherlands, 2009.
- [29] B.L. Muchabaiwa, Gender-Sensitive and child-friendly budgeting in Zimbabwe, in: M. McNeil, C. Malena (Eds.), Demanding Good Governance: Lessons from Social Accountability Initiatives in Africa edited By, World Bank Institute, Washington, 2010, pp. 109–135 http://www-wds.worldbank.org/external/default/ WDSContentServer/WDSP/IB/2010/07/06/000334955_20100706051828/ Rendered/PDF/555460PUB0Dema1EPI1978968101PUBLIC1.pdf accessed 23 September 2017.
- [30] B. James, "At the margins of power: gender and policy in the energy sector, AGENDA 15 Published on line 20 Apr 2011, 1999, pp. 18–47.
- [31] N. Kabeer, Gender Mainstreaming in Poverty Eradication and the Millennium Development Goals, The Commonwealth Secretariat, London, 2003.
- [32] GEWNet, Project Completion Report on "Advocacy for Gender Sensitive Energy Policy in Nepal", The Hague: ENERGIA, 2010.