

Gender review of national energy policies and programmes in Sri Lanka

Improving gender-inclusive access to clean and renewable energy in Bhutan, Nepal and Sri Lanka



Japan
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ENERGIA
INTERNATIONAL NETWORK ON
GENDER AND SUSTAINABLE ENERGY



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Preface

Improving gender-inclusive access to clean and renewable energy in Bhutan, Nepal and Sri Lanka is an Asian Development Bank (ADB) supported project (JFPR Grant-9158 REG). The project aims to increase rural poor women's access to affordable and reliable clean energy sources and technologies in selected project sites in Bhutan, Nepal and Sri Lanka.

This report presents a gender review of Sri Lanka's energy sector policies and programmes, which was undertaken as part of the project. It assesses the gender inclusiveness of the energy sector at three levels: policy, programmes and organizations. The review largely focuses on electricity access, including grid extension and off-grid electrification options, however, experiences in other sectors were also scanned, primarily to identify good practices that can be applied in the electricity sector.

The gender review in Sri Lanka was undertaken by Prof. Anoja Wickramasinghe, supported by Soma Dutta and Namiz Musaffer. The report was reviewed by Sheila Oparaocha and Govind Kelkar. The team would like to acknowledge the support received from the Ceylon Electricity Board; the Asian Development Bank; the Sri Lanka Resident Mission, in particular Ranishka Wimalasena and Nelun Gunasekera; the Sri Lanka Sustainable Energy Authority; the Ministry of Power and Energy; and other organizations and individuals consulted.

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Abbreviations

ADB	Asian development Bank
CEB	Ceylon Electricity Board
CEDAW	Convention on Elimination of All Forms of Discrimination Against Women
CENWOR	Centre for Women Research
CPS	Country Partnership Strategy
DS	Divisional Secretariat
ECF	Energy Conservation Fund
ECS	Electricity Consumer Societies
GDI	Gender Development Index
GEM	Gender Empowerment Measure
GND	Grama Niladari Division
JFPR	Japan Fund for Poverty Reduction
LKR	Sri Lankan Rupees
MOPE	Ministry of Power and Energy
MOWA	Ministry of Women Affairs
NCED	National Council for Environment and Development
NDP	National Development Programme
NEPS	National Energy Policy and Strategies
NGO	Non-Governmental Organization
NRE	Non-Conventional Renewable Energy
PA	Practical Action
PES	Provincial Energy Statute
PSA	Pradeshia Sabha Act
PISCES	Policy Innovative System for Clean Energy Security
RERED	Renewable Energy for Rural Economic Development
SLSEA	Sri Lanka Sustainable Energy Authority
UNDP	United Nations Development Programme

Executive Summary

Improving gender-inclusive access to clean and renewable energy in Bhutan, Nepal and Sri Lanka is an Asian Development Bank (ADB) supported project (JFPR Grant-9158 REG). The project aims to increase rural poor women's access to affordable and reliable clean energy sources and technologies in selected project sites in Bhutan, Nepal and Sri Lanka.

This is a report on a gender review of the energy sector policies and programmes in Sri Lanka, which was undertaken as part of the project. It assesses the gender inclusiveness of the energy sector at three levels: policy, programmes and organizations. The review largely focuses on electricity access, including grid extension and off-grid electrification options, however, experiences in other sectors were also scanned, primarily to identify good practices that can be applied in the electricity sector.

The gender review of key energy sector policies was undertaken covering the three tiers of governance in the country, the national, Provincial and Pradeshiya Sabha (divisional). Specific documents reviewed included the National Energy Policy and Strategies of Sri Lanka, 2008; the Provincial Energy Statutes, 2011 (draft); the Pradeshiya Sabha Act, 1987; the Electricity Act, 2009; and the Sustainable Energy Authority Act.

National gender, development and energy scenario

- The national development processes in Sri Lanka are driven by the government's 'Mahinda Chinthana Vision for the Future', which includes a view of women as pioneers of development and emphasizes creating an environment conducive to women's economic and social empowerment. The Mahinda Chintana vision is based on the economic philosophy that the growth in Gross Domestic Product alone would not bring economic prosperity to the society.
- Sri Lanka has made good progress in achieving gender equity in health and basic education, brought about through giving women the right to vote, free education and health services. An area that needs attention is women's economic empowerment and decision making, including in governance systems at the national and sub-national levels. Women's participation in labour is low, with the majority of women engaged in low-skill and poorly paid jobs in the informal sector.
- Over 20 percent of Sri Lankan households are headed by women. Women who experienced the armed conflict in the North and East felt the reversal of earlier gains in education, health, employment and political participation and were subjected to wartime rights violations as well.
- Sri Lanka stands out in South Asia for its high rate of household electrification. By 2012, nearly 4.9 million consumers, including 4.4 million domestic consumers (94 percent of population) were served by the national grid. The government envisages reaching a 100 percent target in country-wide electrification by 2015, with at least 10 percent coming from renewable energy.
- For cooking and heating, biomass continues to be the most widely used energy source, especially in rural areas. Approximately 65 percent of the biomass entering the primary energy supply is used for cooking and heating and 32 percent by industry.
- In the energy sector, several issues hinder women's participation and their ability to benefit from interventions: women's restriction largely to non-commercial (and non-monetized) activities; their low representation in decision making bodies; their limited engagement in formal communication channels and consultation processes; and the prevalent inequalities in women's knowledge, access to productive resources and financial capacity.

Findings: Gender gaps and opportunities in national energy sector policies

- Most policy and programming documents in the energy sector are silent on gender. The goal of the National Energy Policy and Strategies, for example, is to provide affordable energy services to support socially equitable development of the citizens, without specific consideration of men and women. Experience worldwide has shown that the assumption that men and women benefit equally from electrification and have equal capacities to use it for satisfying their needs does not always hold true.
- One category missing attention in national policies is women headed households (which constitute as much as 20 percent of the population).
- The government supports the Provincial Councils in harnessing local energy sources for household electrification. In the implementation of most off-grid projects, local women are not consulted regarding issues related to use of local resources or gender differentiated energy needs. The potential of involving women in project management functions is missed, except in a few locations that are managed by NGOs and community-based organizations. In these, women have demonstrated their abilities as custodians of local resources and as managers of decentralized energy systems.
- The National Energy Policy and Strategies of Sri Lanka, which primarily focuses on electricity, is silent on cooking fuels and biomass, except for a mention of biofuels as a source of commercial energy. While the government has a target on 100 percent electrification, there is no target for clean energy or cooking fuels. Failure to focus attention on biomass, which contributes nearly 50 percent to the total energy supply, and affects the majority of women, is a gap in the policy. At the same time, commercial development of biomass for renewable energy remains a promising, yet untapped avenue for women to engage in energy enterprises.

Recommendations: Strategies to benefit and empower women and reduce gender inequalities in the energy sector

In order that women participate in and benefit from energy sector interventions in a meaningful manner, the following recommendations are made:

- *Mainstream gender in energy sector policies*

Align energy sector objectives and strategies with national development priorities and goals (e.g. the Mahinda Chintana vision) on empowering women, and reducing inequalities between men and women, thereby enhancing women's roles in the energy sector. For example, the National Energy Policy and Strategies should specifically address the differences between men and women in energy needs and access to resources.

Gender awareness and analysis inputs should also be included at the level of regional energy policies. The prevalent region-based development model of the country provides a framework for making development policies and interventions responsive to local contexts, issues and needs, including those of women. The Provincial Statutes could promote gender mainstreaming in decentralized energy planning processes and the Electricity Consumer Societies, which enable community members to participate in small scale energy supply.

- *Establish gender sensitive targets and indicators for energy programmes*

Integrate gender aspects in energy planning processes, supported by guidelines, tools and financial allocations. Energy programmes need to have clear targets, outcomes and monitoring frameworks that consider women and disadvantaged groups. This can be facilitated by adding gender specialists

to programme teams. For example, the Electricity Act does not differentiate between different end uses within the household. In not recognizing the range of energy-intensive tasks that women are engaged in, it misses some of the positive impacts that electrification could have on women's lives.

A positive example is the 2007-2012 Policy Innovation Systems for Clean Energy Security Project (PISCES), which provided new information in the area of biomass energy, including the roles and responsibilities of men and women regarding energy and their technology needs. The project's analysis of biomass use and stove technologies led to the development of a framework for collecting gender disaggregated data, designing desired technology, and introducing monitoring and evaluation frameworks with indicators illustrating behavioural changes. It is planned that the lessons learned will be integrated into future activities such as testing of improved technologies by engaging women.

- *Ensure participation of women in energy plans and programmes*

Stipulate targets for representation of existing women's associations and women's NGOs in energy policy planning through public consultations, and provide leadership and confidence building training to these organizations to ensure their effective participation in the public consultations. In addition, energy infrastructure programme documents should set out explicit objectives for women's energy access, participation in managerial and decision making, and labour mobilization. The programme documents should also specify time frames, budgets and human resources needed to achieve this, including training of personnel, and appropriate implementation and organizational procedures.

Surveys, evaluations and sector reviews provide strategic entry points for women's input. The Sri Lanka Sustainable Energy Authority Act specifies the need to undertake a socio-economic survey of those who will benefit from a project. An important consideration is how men and women will benefit from energy services and how the benefits of each can be maximized, and this sort of information needs to be identified clearly as an area to be examined. Where socio-economic studies incorporating gender concerns are done prior to implementation, there also should be clear mechanisms for linking these to programme design.

- *Provide women with energy-related information and training*

Involve women in training on technical and business development aspects of energy projects, and ensure that they have access to information on available energy options and provisions. Alternative communication channels may need to be employed for dissemination of information to women, especially in remote locations, for example, internet cafes, rural radio, women rural development societies etc.

The Gramashakthi programme offers loans to provide affordable renewable off-grid electricity to members of rural communities. In principle the process in identifying households and approving the package of services would allow women to discuss their needs, but in practice men attend the consultations and women are only involved indirectly. In Rambukoluwa, for example, the micro hydro project initially concentrated only on lighting without considering the energy needs of women. Later on discussions with women encouraged the technical staff to enable them to use the electricity generated during the day for grinding grain and pumping water. In that context, it is important for the women to learn how to handle the technologies, since without training the women cannot manage the systems for such uses.

- *Establish targeted programmes for women headed households*

Identify women headed households, who constitute over 20 percent of the population, and women from disadvantaged communities as a specific category requiring targeted interventions in energy programmes, and use awareness raising initiatives and financial instruments such as revolving loan funds, to enable the women headed households to finance the upfront electricity connection costs and costs of purchasing other energy services. Use “Result Based Financing” instruments that include performance targets on the number of women headed households accessing these loans as conditions for continued donor support to revolving funds.

- *Promote women’s use of energy for productive enterprises:*

Strengthen the capacity of women to use energy for livelihood enhancement and income generation. One of the lessons from the Kaikawala Village Hydro Project implemented by the Energy Ministry of the Central Province under the RERED programme was that it was mostly men who used the electricity for income generation due to the customs concerning men handling money and machinery. This highlights the need for introducing special options for energy based enterprises to enable women to use access to electricity for improving their incomes.

- *Develop a biomass fuel strategy*

Recognize biomass as a contributor to national energy, and request support from development partners, such as UNDP and the World Bank, to develop a National Biomass Energy Strategy (BEST). The goals of the strategy should be to ensure a more sustainable supply of biomass energy, and to implement time bound targets, milestones and financial allocations that promote access to modern fuels and more efficient biomass combustion technologies for households and small enterprises.

Recommendations: Integration of gender into ADB’s energy sector work in Sri Lanka

ADB’s Country Partnership Strategy indicates that ADB’s assistance in the energy sector will focus on renewable energy development (including wind and other clean energy sources), energy efficiency improvement, transmission and distribution systems, and improving energy access. ADB will help the government in creating an enabling environment for clean power development, particularly through public private partnerships, reducing system losses, and pursuing sector reforms, including accelerating ongoing initiatives toward unbundling, and greater private sector participation.

The Country Partnership Strategy mentions that in implementing its energy sector work, gender concerns will be identified and addressed, where relevant, for project outcomes to contribute to gender equity and equality. The future portfolio focuses on infrastructure, yet offers opportunities for gender-responsive project design. In designing and implementing projects, efforts will be made to mainstream gender in the various stages. Gender action plans and design features will be incorporated where required and relevant, and project design will include sex-disaggregated data in baseline information, for monitoring and review during implementation and in reporting on results.

As of now, the Sustainable Power Sector Support Project is the only energy sector project that has a gender component, being implemented with support from the JFPR Grant 9158 REG. It is expected that this project will yield lessons that can pave the way for gender mainstreaming for ADB’s energy sector projects in Sri Lanka. Inclusion of gender into project portfolios, capacity building of energy sector institutions, financing of special components and creating opportunities to address women’s needs is crucial.

The following recommendations are made to further strengthen this.

- Review current ADB project guidelines and integrate gender sensitive outcomes, targets and indicators into monitoring frameworks of energy programmes in order to ensure that project implementers take responsibility for gender inclusive energy sector development.
- Strengthen institutional capacities at the national and provincial levels in integrating gender aspects in energy planning processes by providing technical advice and gender expertise to relevant government institutions during the preparation of operational plans, programmes and budgets. Develop user-friendly manuals, guidelines, tools and training materials for gender sensitive planning, budgeting and programming. Implement gender training programs for relevant decision making and technical practitioners. Improve the quality, collection, analysis and management of gender disaggregated data in national and provincial energy initiatives for effective tracking of gender targets and results.
- Support the national government in undertaking pilots and scaling up projects that build the capacity of women to utilize energy services, including electricity, for income generation and livelihood strengthening. The ongoing JFPR Grant is a step in this direction, and the lessons from this need to be integrated into other energy sector projects and programmes.
- In all ADB energy sector projects, track to what extent women and disadvantaged groups are able to access electrification inputs. This can ensure equitable economic benefits from such projects and maximize the effectiveness of investments. (Projects also need to track other non-monetary benefits that energy services offer such as improved security, improved safety for children, more time available, and improved health.)
- In ADB projects on energy efficiency and conservation, involve women by targeting them as key “motivators” regarding energy conservation and efficiency in households and communities. Include cooking energy as a priority in energy efficiency interventions (e.g. replacing traditional biomass fuels with modern fuels and improving the efficiency of biomass use through improved cookstoves and kitchen improvements).

Engage women’s groups in the formulation of energy efficiency policies and measures, ensuring that energy efficiency measures support women’s income-generation activities and domestic needs.

1. Background and introduction

1.1 Introduction

The *Improving gender-inclusive access to clean and renewable energy in Bhutan, Nepal and Sri Lanka* is Asian Development Bank (ADB) supported project (JFPR¹ Grant-9158 REG). The project aims to increase rural poor women's access to affordable and reliable clean energy sources and technologies in selected project sites in Bhutan, Nepal and Sri Lanka. The project has three interrelated components:

- Component A: Gender review of the energy sector. This component documents good practices in incorporating pro-poor and gender-related aspects in energy sector policies, laws and regulations in ADB's South Asian Regional Department (SARD) developing member countries (DMCs).
- Component B: Interventions on energy-based livelihoods for women. In the three countries, direct interventions supporting gender-inclusive access to renewable energy and energy-based livelihoods will be implemented.
- Component C: Monitoring processes and impacts. A Project Performance and Monitoring System (PPMS) is designed for tracking and documenting social and gender-related processes and impacts of interventions.

In each of the three countries, the JFPR grant Components A and C are implemented by ENERGIA/ ETC Foundation², in collaboration with national NGOs, while Component B activities are implemented by the national NGO and the National Implementing Agency³. In Sri Lanka, Practical Action is implementing project activities.

This is a report of the gender review of the energy sector policies and programmes in Sri Lanka.

This report is organized in four chapters. The Introduction chapter presents the background, rationale, methodology and scope of the gender review. This is followed, in chapter 2, by an overview of the national level gender and development issues and of the energy sector. Chapter 3 presents the findings of the gender review in terms of an assessment of key energy sector policies, programmes and institutions. Chapter 4 identifies specific opportunities for gender mainstreaming and makes recommendations for the energy sector as a whole and for ADB.

1.2 Methodology and scope

The review focuses on existing energy sector policies, the institutional and organizational structures delivering clean energy, energy projects and programmes implemented by the government and other development partners in Sri Lanka. It assesses the gender inclusiveness of the energy sector at three levels: policy, programmes and organizational levels. The review largely focuses on electricity access, including grid extension and decentralized off grid electrification options, however, experiences in other sectors were also scanned, primarily to glean good practices that can be applied in the electricity sector.

¹ Japan Fund for Poverty Reduction

² The International Network on Gender and Sustainable Energy (ENERGIA) is an international network working on training, research and institutional development in the area of gender and sustainable energy. It is hosted by the ETC Foundation in the Netherlands.

³ The implementing agencies for Nepal, Bhutan and Sri Lanka are Nepal Electricity Authority, Department of Renewable Energy, Ministry of Economic Affairs and the Ceylon Electricity Board respectively.

The Review has been carried out through desk studies and interaction with the government and other implementing partners in Sri Lanka. The methodology involved the following elements:

- Literature review focused on energy policy documents; project and programme documents. The following types of documents were reviewed (list included as Annex 2):
 - Energy policy documents of the Ministry of Power and Energy (MoPE) and the various Acts relevant for the energy sector; policy guidelines produced by the National Planning Division of the Ministry of Finance and Policy Planning.
 - Published and unpublished reports of energy programmes including the Programme on Electricity Distribution and Network Development and Accessibility Improvement, the 'Grama Shakthi' Programme aimed at providing off-grid electricity to un-electrified villages; and the 'Policy Innovation Systems for Clean Energy Security' project.
 - National level assessments and other published reports such as the Sri Lanka Human Development Report, national census reports, Millennium Development Goals (MDG) tracking reports, ADB gender publications, internal project reports of the Sri Lanka Sustainable Energy Authority (SL SEA) and Practical Action Sri Lanka. A list of references is included as Annex 1.
- Documentation of current status including good practices and lessons learned in gender responsive energy service provision, and identifying gaps and opportunities.
- Consultations with the planning division of the MoPE; Sri Lanka Sustainable Energy Authority (SL SEA); the Secretary to the Central Province Energy Ministry; Additional Secretary, Ministry of Women's Affairs and the director of the Women's Bureau of Sri Lanka. At the district level, the District Secretary of Ampara and officers in charge of CEB electricity infrastructure development in the Ampara District were interviewed. List of persons interviewed is included as Annex 3.
- A national knowledge sharing workshop was organized to share the findings of the Review in Colombo on 12th August 2013. This was attended by key stakeholders in the sector, and the inputs and suggestions received incorporated into the report (Agenda included as Annex 4).

2. Country context: An overview of gender, development and energy sectors in Sri Lanka

2.1 Women's rights and gender in Sri Lanka

Legislative framework and process supporting gender equality

Sri Lanka committed itself to gender equality many years before the State became party to Convention on Elimination of All Forms of Discrimination against Women (CEDAW) in 1981, the international treaty that sets the norms on women's human rights and their right to equal treatment. Women, together with men, received the right of franchise in 1931. Social policies on health and education introduced in the 1940s and 1950s guaranteed equal access to women and girls. The Constitution of 1978 guaranteed equal rights without discrimination on the grounds of sex (Government of Sri Lanka, 1978). Subsequently, in 1993, the Government adopted the Sri Lankan Women's Charter, which laid out the rights Lankan women are entitled to and the institutions envisaged to enable and enforce these rights (National Committee on Women, 1993). The Women's Charter emphasized that the issues of gender discrimination, gender equality and women's rights are priority areas of concerns and helped formulating strategies to address them.

The State's commitment to women's issues and gender equality was confirmed by endorsing the Platform for Action of the Fourth World Conference on Women in Beijing in 1995. CEDAW and the Beijing Platform of Action have been crucial in providing framework for advocacy, policy formulation and planning. The Millennium Development Goals generated further stimulus towards gender equality and encouraged sectors like agriculture, education and health to advocate gender equality. In the energy sector, there have been no concrete efforts to strengthen its institutional capacity to ensure gender equality through its policy framework, strategies, projects and programmes.

The National Plan of Action (Ministry of Child Development and Women's Affairs) which was originally prepared in 1996, after the Beijing Conference, was updated in 2001 by the National Committee on Women, in collaboration with NGOs, researchers and academics. It identified issues and problems of women within the development sectors, and proposed specific activities to be taken up as national commitment towards Gender Equality. The Plan outlined directives in eight areas of critical concern: violence against women; political participation and decision making; health; education and training; economic activities and poverty; media and communication; environment and; institutional strengthening. In 2003, the Sri Lankan government amended the Citizenship Act of 1948 to eliminate the gender discriminatory provisions of that law. However, despite constitutional guarantees, only a few laws have been amended to remove gender discrimination (ADB, 2008a).

Sri Lanka has ratified the key international mechanisms on human rights, including four major instruments relevant to rape and other forms of gender-based violence (UNDP, 2012). However, like many other countries, many provisions of the international instruments have yet to be translated into laws and policies at the national level (ADB, 2011b).

The national development processes in Sri Lanka are driven by 'Mahinda Chintana'⁴ the National Development Programme (NDP), the Regional Development Programme of the Ministry of Economic Development and the activities implemented under the Ministry of Women Affairs. Mahinda Chintana identifies women as pioneers of development, prioritizes empowering women, and reducing inequalities between men and women. The Mahina Chintana framework includes reducing barriers, encouraging conditions for women's equal participation in development, and empowering them

⁴ The *Mahinda Chintana* vision of the government is based on the economic philosophy that the growth in Gross Domestic Product (GDP) alone would not bring economic prosperity to the society.

through women's entrepreneurship development fund; self-employment and special loan schemes; awareness creation to attract women to technical and vocational courses; women's data bank to facilitate access to data on women; non-traditional and virtual courses on technical education; equal wages; measures to protect female migrant workers from exploitation; and enhance women's participation in provincial councils, all of which are important as instruments for expanding gender responsive electricity services. The key elements of Mahinda Chintana (Ministry of Finance and Planning, 2010) National Development Programme include:

- Promoting quality and productive employment and gainful economic activities for women (promoting women entrepreneurs, credit facilities, marketing and high technology)
- Expanding women's skills (technical and vocational training and education)
- Equal gender division in labour market and working conditions and services for women (equal wages, access to child care, agreements to protect female migrant workers),
- Sufficient representation of women in community consultation (increase female nominations to contest local elections, organizing grass roots women)
- Ensuring nutritional standards by providing nutrient supplements to pregnant mothers (nutritional supplements, good hygiene practices, special quality health care services)
- Creating a supportive institutional framework (Special framework for marginalized and women in difficult situations like conflicts and displacement, legal provisions to recognize women as heads of household and equal rights of access to productive resources)

These initiatives contribute to progress in poverty reduction, health, education and reduction in maternal and infant mortality. Funds are allocated for women headed households in conflict affected areas to provide facilities like housing and drinking water (Internal report, Ministry of resettlement, 2010), though not for electricity access. The Women's Bureau supports women in livelihoods like agriculture, fisheries and small enterprises with specially designed packages with skill and leadership training and financing, and organizes them in district level federations.

Institutional set up for gender equality and women's empowerment

Sri Lanka created the Ministry for Women's Affairs in 1983, which was subsequently converted into the Ministry of Child Development and Women's Affairs. The Ministry of Child Development and Women's Affairs is composed of the Ministry, the National Committee on Women, the Women's Bureau of Sri Lanka, and the Children's Secretariat. The National Committee on Women was established in 1993 as the implementing arm of the Women's Charter. Women' Bureau is the operational arm of the ministry and engaged in coordinating activities and formulating and registering women's organizations and District Federations.

The Ministry is responsible for implementing relevant policies and disbursing funds. It addresses issues related to women in plantations, those in war and conflict affected areas, and women securing overseas employments and migrating on work, providing training and introducing income generation opportunities. The Ministry has appointed Women Development Officers at Divisional Secretariat levels to support programmes and form grassroots women's organizations and link them with extension services.

The Ministry of Women's Affairs and the Women's Bureau have so far not made any linkages with the energy sector for providing inputs into the energy policy making process (personal communication, the Secretary and Additional Secretary, Ministry of Child Development and Women's Affairs). As far as integration of gender into energy sector and that of energy into the gender development policy is concerned, it is not being treated as priority as of now.

Progress and gaps in key gender indicators

Sri Lanka has made good progress in achieving gender equity in health and education, brought about through giving women their right to vote, free education and health services. Universal adult franchise introduced in 1931 and free education system put in place in 1945 contributed substantially to make a progressive change in the lives of women. Sri Lanka has almost achieved the MDG targets for universal primary education and gender equity in education. In 2006, it attained a primary enrolment rate of 97.5 percent, and practically reached gender parity in primary education, with the ratio of girls to boys at 99 percent (UNDP, 2012).

In 2007, the Center for Women's Research compiled data on gender dimensions of the Millennium Goals in Sri Lanka (CENWOR, 2007) and identified areas in which gender parity has been reached and areas in which gender gaps have not been reduced significantly (Table 1). It is clear that Sri Lanka has reached or nearly reached gender parity with regard to welfare related indicators, pointing to the effectiveness of state policies on health and education.

Table 1. Millennium Development Goals, indicators and gender gaps for selected variables

Goals/Indicators	Situation percent/ year	Target at 2015
1) Eradicate extreme poverty and hunger		
i. Proportion of population below national poverty line	8.9 - 2001	Already reached
ii. Poverty gap ratio (incidence and depth of poverty)	5.1 - 2002	19.0
iii. Prevalence of under-weight children under 5 yrs age	29.4 - 2000	25.0
iv. Proportion of population below minimum dietary energy consumption	51.3 - 2002	
2) Achieve universal primary education		
i. Net enrolment ratio in primary school, 6-10 years	Male 97.1- 2002 Fm. 95.6- 2002	99 99
Proportion of pupils in grade 1 who reach grade 5	Male 96.9 -2001 Fm. 98.3 -2001	100 100
iii. Literacy rate of 15-24 yr olds	Male 95.1- 2001 Fm. 96.0- 2001	99 99
3) Promote gender equality and empower women		
i. Ratio of girls to boys in primary education	94.8 - 2002	100
ii. Ratio of girls to boys in secondary education	104.6 - 2002	104
iii. Ratio of girls to boys in tertiary education	89.8 - 2001	100
iv. Ratio of literate women to men 15-24 yrs old	109.0 - 2001	109
v. Share of women in wage employment in non-agricultural sector	31	50
vi. Proportions of seats held by women in national parliament	4.9 - 2004	10
4) Reduce child mortality		
i. Child mortality rate (per 1,000 population of 0-4 yr age group)	Male 4.7 - 1997 Fm. 4.1 - 1997	Male 1.4 Female 1.1
ii. Infant mortality rate	16.3 - 1997	5.9
iii. Proportion of one year old children immunized against measles	89.5 - 1997	99
5) Improve maternal health		
i. Maternal mortality rate (per 10,000 live births)	1.4 - 2002	1.4
ii. proportion of births attended by skilled health personal	96.0 - 2002	99
6) Combat HIV/AIDS, malaria & tuberculosis	n.a.	n.a.
7) Ensure environmental sustainability		
i. Proportion land area covered by dense forests	22.4 - 2001	no loss
ii. Energy use (oil equivalent) TOE		
*Hydro percentage	7.3m - 2001	--
*Petroleum	9 - 2001	10
*Biomass	41 - 2001	40
*Other Renewable	50 - 2001	45

Source: CENWOR, 2007

As a group, women in Sri Lanka fare well compared to those in similar developing countries, but are still marginalized in some areas. While there is a high level of basic literacy among women, in practice traditional patriarchal attitudes limit the interaction of a vast majority of women in community decision making and in commerce. In conflict-affected areas, women bear the brunt of social instabilities, with gender-based violence having increased due to the overall environment of violence and insecurity over the past 20 years (ADB, 2010a). For women, labour force participation rates are low; they are paid less than men, a difference not explained by their productive capacity and true for all sectors. A related area for improvement is women's empowerment. From 2004 to 2010, less than 6 percent of the 255 members of Parliament were women; inclusion in governance mechanisms at the sub-national level is lesser (UNDP, 2012). The country gender assessment carried out by the ADB (ADB, 2008a) showed that that gender discrimination in employment has resulted in widespread inequality, with women engaged in low-paying, low-skills jobs and mostly in the informal sector. This reinforces the conditions for women's poverty.

Over 20 percent of Sri Lankan households are headed by women (Household and Income Expenditure Survey, 2006/2007). The percentage of women headed households according to the 2006/2007 survey stands at 25.5 percent, 23 percent and 22.9 percent in the urban, rural and estate sectors respectively. These statistics exclude the Northern Province and the Trincomalee district in the Eastern Province. Women who experienced the armed conflict in the North and East experienced reversal of earlier gains in education, health, employment and political participation while at the same time they were subjected to war time rights violations⁵ (Tudawe, undated).

In 2004, Sri Lanka's Gender Development Index (GDI)⁶ was 0.737 and the Gender Empowerment Index (GEM)⁷ was 0.274 (NCED, 2005). UNDP's 2010 Human Development report (UNDP, 2010), which focused on gender equality, reported that by 2007, the GDI had risen slightly to 0.756 and the GEM to 0.389. In 2011, according to gender indices and ranking Sri Lanka scored 0.419. More recently, the issues related to women's empowerment are also reflected in the index, the Gender Inequality Index (GII)⁸. GII reflects gender-based inequalities in three dimensions: reproductive health, empowerment and the labour market. Sri Lanka's GII is high at 0.565 compared to most countries in the medium human development category, indicating inequalities (UNDP, 2012). On the indicators considered for the GII, Sri Lanka performs well on maternal mortality and education, but could improve performance on labour force participation and parliamentary representation.

Key statistics on women's status and gender equality in Sri Lanka are summarized in Table 2.

⁵ <http://www.fao.org/docrep/009/ag114e/AG114E03.htm>

⁶ The Gender-related Development Index (GDI) assesses the impact of gender inequalities on human development by adjusting the Human Development Index (HDI) for differences in male-female income, life expectancy and education—the three dimensions on which the HDI is based. The GDI ranges between 0 (minimum) to 1 (maximum). Higher values indicate greater gender equality.

⁷ Gender Empowerment Measure (GEM) reflects the economic and political opportunities women have. It tends to be lower than the GDI, suggesting that even when women have capabilities, they may not have opportunities to use them. The GEM ranges between 0 (minimum) and 1 (maximum). Higher values indicate greater gender equality.

⁸ The Gender Inequality Index (GII) shows the loss in human development resulting from inequality between female and male achievements in these three dimensions. The values range from 0 (which indicates that women and men fare equally) to 1 (which indicates that women fare as poorly as possible in all measured dimensions).

Table 2 Gender inequalities on key variables

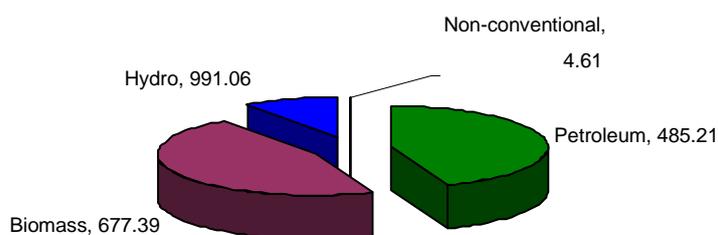
Inequality Indication (year)	Female	Male
Unemployment rate (2012)	6.5	2.8
percent unemployment rate (education G.C.E. (A/L) & above) (2012)	9.3	4.9
Daily wage (2012) Sri Lankan Rupees	512.00	691.00
Underweight children below 5 yrs (2010)	29.8	29.0
Literacy rate of 15-24 year olds (2011)	96.0	95.1
Gross enrolment in primary education 6-10 years (2007)	91.4	92.2
Primary enrolment rate (2007)	83.6	83.6
Proportion of pupils starting grade 1 reaching grade 9 (2001)	86.3	79.1
Labour Force Participation rate(2012)	31.6	66.7
percent of employed in agriculture (2012)	34.7	29.0
percent of employed in industry (2012)	24.7	25.8
percent of employed in services (2012)	40.6	45.1
percent of employed working as own account worker (2012)	23.6	34.9
percent of employed working as unpaid family worker (2012)	20.9	3.7
percent of employed working as employee (2012)	54.3	57.5
percent in the parliament (2004)	5.8	94.2
Infant mortality per 1000 live births (2009)	9.4 Country	
Maternal mortality per 1000 live births (2009)	7.2 Country	

Source: Dept. of Census and Statistics 2012; UNDP, 2012; NCED, 2010.

In summary, it can be said that as a group, Sri Lankan women have made significant progress, especially in areas of basic education and health. An area that still needs attention is women's engagement in labour, their economic empowerment, and their involvement in governance mechanisms, especially at higher levels.

2.2. Energy sector in Sri Lanka: supply and demand

Energy needs of Sri Lanka are met through primary energy sources like biomass and petroleum and by secondary sources such as electricity from hydro, biomass and petroleum. Between 2009 and 2010, the share of electricity generated from the CEB hydro power plants increased from 33.8 percent to 46.3 percent, while the share of thermal power plants reduced from 21.1 percent to 12.9 percent (SLSEA, 2010). An increase from 5.3 percent to 6.0 percent was also recorded in the power produced by small power producers. Figure 1 shows the sources of primary supply of energy in 2011.

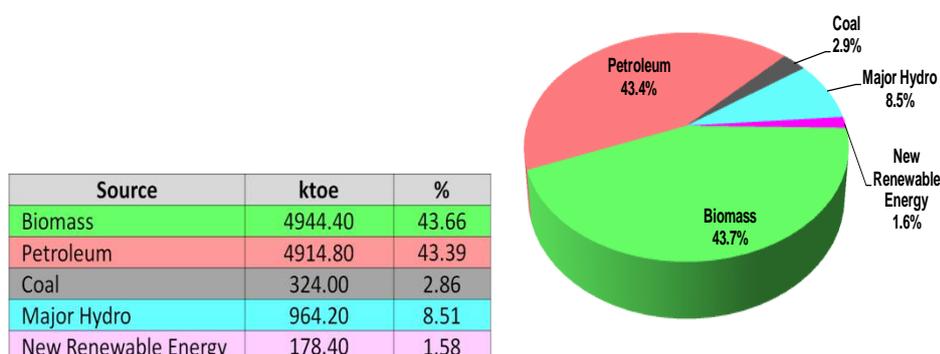
Figure 1. Primary Energy Supply by Source, 2011

Data source: Sustainable Energy Authority, *Sri Lanka Energy Balance 2011*.

Sri Lanka stands out in South Asia for its high rate of household electrification. The 'Mahinda Chintana'-vision for the future, envisaged providing 100 percent of households with electricity by the end of 2012 through an accelerated electricity distribution system. Rural electrification has been accelerated since 1983, and between 1986 and 2005, the national electrification rate rose from 10.9 to 76.7 percent (GEA, 2012). By 2010, Sri Lanka had electrified 85 percent of its households (83 percent in rural areas and 96 percent in urban) (SE4ALL, 2013). In 2012, nearly 4.9 million consumers, which include 4.4 million domestic consumers (covering around 94 percent of population) were served by the national grid (Ministry of Finance and Planning, 2012, and Lanka Business Report, July 2013⁹). The number of off-grid electricity consumers also increased significantly over the years. In 2010, 157,342 households were with off-grid solar photovoltaic, 7,233 consumers were with off-grid hydroelectricity and 25 consumers with wind battery charging systems (SEA, 2010). Investment support for off-grid services comes from the government through the Provincial Councils and other projects. At this point, around 40,000 households, mostly located in remote areas and in forest areas are not covered through the national grid, and these are planned to be covered through renewable energy. Currently, the Government envisages reaching 100 percent target in country-wide electrification by 2015¹⁰, with a minimum share of 10 percent coming from renewable energy.

Electricity demand comes from four use categories: 39.7 percent from domestic, 0.6 percent religious, 34.2 industrial, 24.2 commercial, 1.5 street lighting (SLSEA, 2010). The present national energy consumption profile depicts that biomass dominates it by contributing 43.7 percent followed by petroleum at 43.4 percent, renewable energy (except large hydro) contributing 1.6 percent of the national energy consumption (see Figure 2) (Sugathapala, 2013).

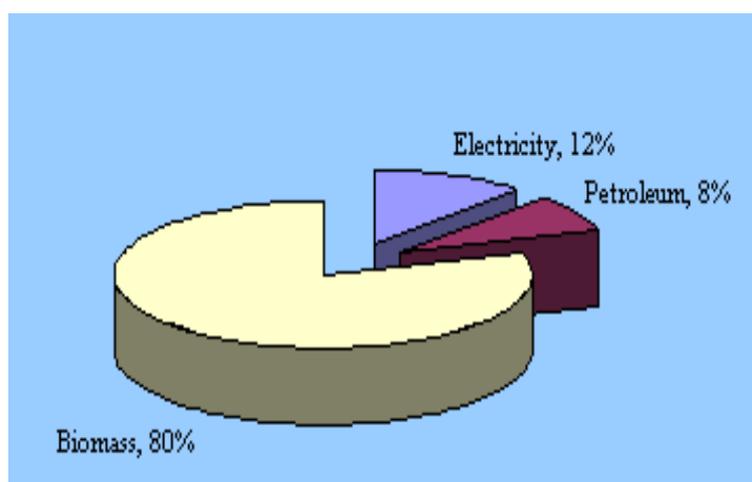
Figure 2. National Energy balance



For cooking and heating, biomass continues to be the most widely used energy source. Out the 5042 kTOE of biomass entering the primary energy supply, 65 percent is used for cooking and heating and 32 percent by the industry. The share of biomass in the household sector is an illustration of the role played by the biomass contributing to energy (See Figure 3) (SLSEA 2011).

⁹ www.lbr.lk/fullstory.php?nid=201211290854282005

¹⁰ http://www.energy.gov.lk/sub_pgs/energy_renewable_intro_policy.html

Figure 3. Energy Consumption by Households, Commercial and others, 2011

Data source: Sustainable Energy Authority, *Sri Lanka Energy Balance 2011*.

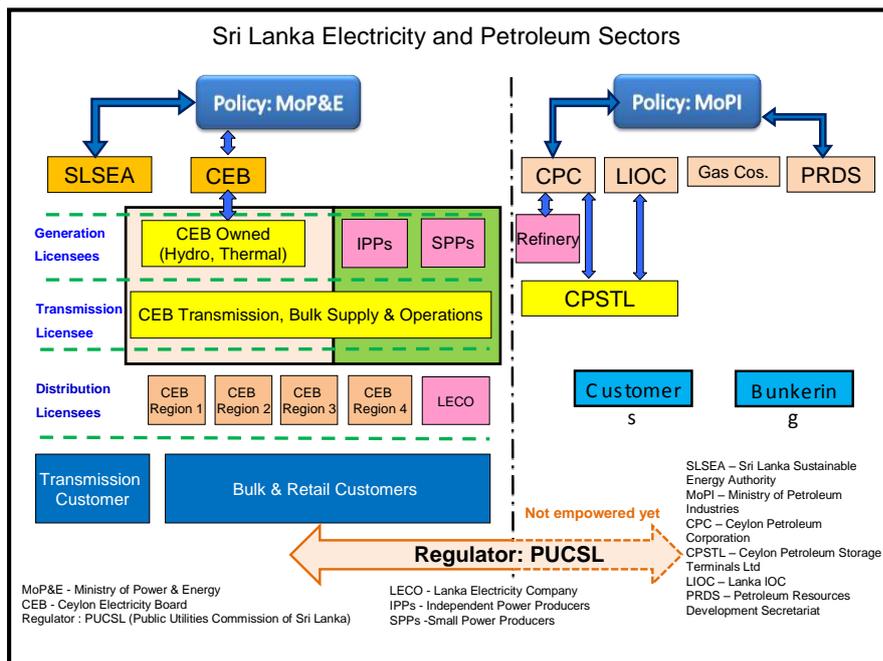
As far as biomass is concerned, there is no formal system in place for its supply and distribution, where over 80 percent of the responsibilities including harvesting and collecting, carrying from sources to kitchen yards, processing and burning activities are shouldered by women (Wickramasinghe, 2010, 1999 and 2003). The most widely used type of stoves in rural households is the semi-enclosed mud stoves. In urban areas, LPG is used in 60 percent of the households and 48 percent of households use improved cookstoves. Cooking practices reveals that over 68 percent of the households use more than one type of stoves or energy type (Wickramasinghe, 2012, 2011).

2.3 Institutional set up of the energy sector

In Sri Lanka, several public sector and private sector organizations are involved in the energy sector. The Ministry of Power and Energy is the main public sector body responsible for the management of power sector discharging its functions through sub-sector institutions. The Sri Lanka Sustainable Energy Authority under the Ministry of Environment (earlier under the Ministry of Power and Energy) is responsible for developing renewable energy resources and energy efficiency measures.

In the electricity sector, the Ministry of Power and Energy (MoPE) and Ministry of Petroleum Industry (MoPI) are the key entities (See Figure 4). While the regulatory role is played by the Public Utilities Commission of Sri Lanka (PUCSL), the CEB under the MoPE is responsible for electricity generation, transmission and distribution. Distribution of electricity takes place through the transmission and distribution network under the Ceylon Electricity Board (CEB), local authorities (municipal) and Lanka Electricity Company (Pvt) Ltd. (LECO) while the distribution of petroleum is handled by the Ceylon Petroleum Corporation (CPC). The Ministry of Petroleum and Petroleum Resources Development and Ceylon Petroleum Corporation are responsible for importing, refining and supplying petroleum and petroleum based products (See figure).

Figure 4. Institutional setup of the electricity and petroleum sectors in Sri Lanka



Source: Ministry of Power and Energy, 2012 (Unpublished materials available at the planning and development division of MOPE)

Private sector organizations are engaged in supplying electricity to CEB, and manufacture and sale of renewable energy systems including solar PV systems. A number of non-governmental organizations such as Practical Action, SEEDs (Savodaya Economic Enterprises Development Services), Energy Forum and IDEA (Integrated Development Association) are involved in the energy sector, especially in research, development and dissemination of renewable energy technologies.

3 Findings: Gender in energy sector policies, programmes and projects

3.1 Gender in energy sector policies

The three tiers in the energy governance structure of Sri Lanka include National Energy Policy and Strategies of Sri Lanka (NEPS), Provincial Council Statute and the Pradeshiya Sabha Act. Within this framework, national policies are declared by the parliament, statutes by the Provincial Councils and by-laws by the local authorities (Musafer 2010). A gender review of key energy sector policies was undertaken covering the three existing tiers of governance, the national, Provincial and Pradeshiya Sabha (divisional). Specifically the following policy documents were reviewed, as presented in this section:

- National Energy Policy and Strategies of Sri Lanka, 2008 (NEPS) the national umbrella framework governing the energy sector
- Provincial Energy Statutes, 2011 (PES) (draft) applicable for the 9 provinces of the country, as the mid-tier of the administrative machinery
- Pradeshiya Sabha Act, 1987 (PSA), which provides by-laws for providing decentralized solutions providing expanded energy services
- Electricity Act, 2009, which provides a framework on electricity supply
- Sri Lanka Sustainable Energy Authority Act

3.1.1 National Energy Policy and Strategies of Sri Lanka

The National Energy Policy and Strategies (NEPS) of the Government of Sri Lanka is the main energy sector policy document produced by the Ministry of Power and Energy in 2008 (Ministry of Power and Energy, Government of Sri Lanka, 2008). The goal of the NEPS is *to ensure the availability of economically least cost energy supplies that are clean, reliable, and sustainable and secure, to provide affordable energy services to support socially equitable development of the citizens*. The document consists of three sections: energy policy elements; implementing strategies; and specific targets, milestones and institutional responsibilities.

Energy policy elements, strategies and enabling opportunities

The NEPS includes nine policy elements, as outlined in this section and strategies for each. The policy elements provide a framework for achieving the goal but do not indicate *how* socially equitable development will be supported; neither do they make specific mention of gender or women. The following paragraphs present a gender review of the relevant policy elements, identifying gaps and specific opportunities for gender integration, which are currently missed out.

Providing basic energy needs

Providing basic energy needs of the people and to enhance their living standards and opportunities for gainful economic activity is recognized as a primary social responsibility of the State. The implementing strategies include improving access to commercial energy; basic electricity; establishing energy plantations and providing subsidies to deserving groups. Gender issues that are pertinent in providing basic energy service, but are missed out in this section and can be strengthened, are discussed below.

- The Sri Lankan Human Development Report points out that women are deprived from owning land and property because of legal and regulatory issues as well as the fact that they lack

awareness of their rights, and mechanisms for enforcing them, and are hesitant to exercise their rights because of social pressures (UNDP, 2012). These differences in resource ownership by men and women can potentially affect their access to energy services including electricity, as aspect not recognized in the policy.

- Neither the policy nor the strategy mentions women of the poor families, women in backward areas and women headed households who do not have access to electricity as a disadvantaged group that may need special treatment.
- Another missing issue is the differential energy needs of men and women, and the potential to use energy for enhancing incomes and livelihoods. For example, water lifting and grain grinding are areas where improved energy service can reduce women's workload significantly. World Bank's Energy-Poverty-Gender (EnPoGen) study in Sri Lanka (Masse and Samaranayake, 2002) revealed that women are awake for 16 hours or more, of which 13 hours are for work, compared with 10 for men, and electricity can make a major difference in this workload.
- Women's contribution to biomass management and their potential role in energy plantations also needs to be recognized.

Ensuring energy security

This focuses on diversifying the energy resources to maximize the country's energy security, through fuel diversity in electricity generation and in the transport sector, regional cooperation, expansion of refining capacity, maintenance of strategic fuel reserves and development of biofuels.

Rural women are engaged in managing local energy supply sources, including farms and home-gardens and are involved in supply-chains surrounding production sources and its utilization in households and for small industries (Wickramasinghe, 2003). Because of their engagement in land based occupations, they can potentially play a role in biofuel-related enterprises, a possible route to women's economic empowerment in rural areas.

Promoting energy efficiency and conservation

Strategies for ensuring efficient utilization and conservation of energy include incentives/disincentives in respect of end-use (appliance energy labelling, building codes and energy audits), improving efficiency in energy conversion, transmission and utilization, reducing power generation and network losses, improving efficiency in transport sector and street lighting.

Women are known to play a key role in household energy use, and influence decisions about appliances use (lighting, cooking, heating, hot water), including choice of time of use, and, therefore, peak use; household purchases of goods and services, which may be more or less energy-intensive or wasteful, e.g., packaging. They also educate and shape children's future energy consumption habits. Studies indicate that women are more willing to make changes in how and what they consume, so information and awareness raising could enable women to live more energy efficiently. In rural areas, one of the most energy-inefficient processes is that of cooking. The low efficiency of biomass fuels is one reason why women have to spend long hours cooking, which is directly connected to the health hazards induced by smoke and emissions from traditional cookstoves.

Energy conservation measures discussed in the strategy miss out on technologies including improved cooking technologies and appliances. Specific entry points for involving women in energy efficiency in homes and communities could be as follows¹¹:

¹¹ ENERGIA 2013. **Gender Briefing Notes**. Prepared for the European Union Energy Initiative Partnership Dialogue Facility (EUEI PDF).

- Policy planning on energy efficiency improvements and technology adoption needs to be created by consulting women. Not consulting women is tantamount to developing products without consulting the end user.
- Target women as key “motivators” in the delivery of energy conservation and efficiency in households and communities.
- Include cooking energy interventions (replacing traditional biomass fuels with modern fuels as well as improving the efficiency of use through improved cookstoves/kitchen improvement etc.) as energy efficiency interventions.
- Complement energy efficiency projects with household user education programs in the safe and efficient use of electricity.
- Promote user education programs targeting women to raise awareness and change household behaviour patterns to improve energy conservation in households.
- Engage women groups in the formulation and implementation of energy efficiency measures and policies, the identification of efficiency energy technologies more suitable to adequately support women’s income-generation activities and domestic needs.

Promoting indigenous resources

Policy element on promoting indigenous resources focuses on reducing the dependence on non-indigenous resources and for reducing vulnerability of energy supplies to external factors. Strategies include promoting use of renewable energy sources by providing level playing field for renewables including biomass-based energy projects, enabling new industrial activities, creating rural income generation avenues, R&D on new technologies and practices, development of biofuels as an alternative resource for transport, and efficiency improvement in conversion of biomass and other wastes to energy.

The strategies on non-conventional energy resources, biomass based energy and biofuel development, and rural income generating avenues do not reflect gender specific opportunities. Integration of biofuel crops into small scale farm operations offers the potential to reduce gender gaps in income, employment and energy enterprises development, which has not been recognized.

Adopting appropriate pricing policy

Pricing strategies include regulating the electricity and petroleum sub sectors by the Public Utility Commission of Sri Lanka, formulation of pricing policy for commercial energy products, mechanisms to identify target groups deserving special considerations and optimal energy supply expansion plans.

In pricing, the one issue missed out is that women are not identified as a group that may be disadvantaged and may need special attention.

Enhancing energy sector management capacity

Enhancing energy sector management is to develop capacities of the energy sector institutions to develop long term energy plans and conduct policy analysis, and the capacity of the Provincial Councils to enhance their contributions to off-grid-electricity supply, and improve national energy sector data base. The policy on capacity building need expanding with strategies for building institutional capacities of MOPE, PUCSL, Provincial Councils and others to undertake gender inclusive planning and implantation of energy projects and programmes.

Gender issues that need attention include

- Collection and analysis of gender disaggregated data to capture differential impacts of energy sector interventions on men and women, and its integration within the national data base for energy sector planning.
- Building the capacity of the Provincial councils to understand how to incorporate local, contextual issues related to social and gender aspects into the planning of decentralized projects.
- Ensuring women's representation in energy sector institutions and also to discuss women in energy sector institutions and governance.

Enhancing the quality of supply

This policy element focuses on enhancing energy service quality through quality standards and regulatory interventions such as energy utilities maintaining a minimum quality of supply of products and services.

The minimum quality of electricity supply is closely linked to the electricity services and devices used by men and women. For instance electricity supply below 240 Watt decreases the quality of lighting, use of electricity of production activities and can damage electric appliances. Similarly, availability of electricity is linked to water pumping, and the timing of power cuts can mean additional work for women in fetching water. Electrified water-pumping to central places in villages in Zanzibar led to women saving three hours a day (Winther, 2006), suggesting that electricity for water supply can ease women's workload. Another area of concern is that no such standards are set for biomass in terms of its maintenance and sustainable harvesting for energy industry through which women could secure energy entrepreneurial opportunities.

Protection from adverse environmental impacts of energy facilities

Strategies to minimize adverse environmental and social impacts caused by electricity and petroleum sub-sector activities include compliance by energy utilities with safety and environmental standards and requirements. Adverse impacts of energy facilities should include differences affecting men and women. Safety standards do not explain the standards expected by the users; men and women and also the gender specific impacts rather than confining to social impacts. Similarly the environmental safety audits should have the capacity to establish and apply gender specific tools for measuring the safety standards acceptable to men and women. The gap here is associated with the failure in focusing on much broader environmental issues including indoor environments and workplace environment and safety that affect women in particular.

3.1.2 The Provincial Energy Statute

The thirteenth amendment to the constitution of 1987 154A mandates the setting up of a Provincial Council for every Province (Government of Sri Lanka 1987). Among its functions are included:

- Development, conservation and management of sites and facilities in the province for the generation and promotion of electrical energy (other than hydroelectric power generated to feed the national grid); and
- Extension of electrification within the province and the promotion and regulation of the use of electricity within the province.

The Provincial Statutes, which lay down the framework for decentralized planning, offer the following opportunities for gender mainstreaming:

- The PCs are responsible for decentralized developmental planning, and deal with multiple areas including energy, public health services and sanitation and water services. Its functions in these key areas have direct linkages with energy including electricity and biomass.

- Within energy projects, the decentralized planning process in place in Sri Lanka provides a mechanism to engage grassroots women and men in designing, implementing and monitoring local energy initiatives. Electricity Consumer Societies, which enables community members to participate in small-scale energy supply can potentially empower local people, including women, in energy resource governance. Small hydro project for village electrification and pico-hydro units utilize water resource that is traditionally managed by women as *resource custodians*. Oftentimes, these operate in catchments managed mostly by women engaged in land-based activities.

As such, there are a few cases where women have shown leadership in management of local resources. Village level micro hydro projects such as Rambukoluwa, Dawatagal and Poyangala micro-hydro projects involved women; in the three projects, women constitute 60 percent, 55 percent and 68 percent of the action committee respectively. Gender sensitive community mobilization enhanced women's collective strength, involved them in project management and helped them get a sense of ownership. In the village micro-hydro projects supported by the Central Province Energy department in Dawatagala and Rambukoluwa, women in ECSs have undertaken measures to avoid silt running down to streams (fences, residue heaps on contours and tree planting), also ensuring water availability for hydro power generation. In Kudumeeriya village, decisions on financial allocation for pico-hydro systems were made by women (Wickramasinghe, 2009a). Similarly, in Sabargamuwa, the Electricity Consumer Societies has women representatives, trained in skill development, using information technology and accessing credit for income generation activities.

The more prevalent norm however seems to be that women are involved in decentralized energy development as beneficiaries alone. Their ability to participate is constrained on the one hand, by lack of opportunities to get technical skills, access to financing and access to information and exposure, and on the other, by lack of clearly spelt out guidelines and tools to help mobilize local capital in hands of men and women.

- “Development, conservation and management of sites” for energy projects is an area where women and men can be affected differently. In general, gender issues associated with energy development projects are differences in how they impact men and women:
 - Population displacements and resettlement: Women often suffer more from the loss of their household assets and social support networks
 - Disruptions in natural ecosystems from flooding, reduced water flows or the clearing of forests, with differing impacts on men's and women's livelihoods
 - Economic changes: New roads, businesses and communications systems, in-migration of large numbers of men for jobs can disrupt women's traditional livelihoods, if mitigation measures are not taken
 - Social changes and conflicts resulting from resettlement and disruptions in authority structures and community networks: with possible negative consequences for women's status and resources available to them
- At an institutional level, the members to the Provincial Councils are elected by the voters. The Statutes talk about involvement of community representatives, and there seems to be an implicit assumption that benefits from energy services can be accessed equally by men and women, which is not necessarily true. Women's representation at PCs is 4.1 percent in 2010, the highest of 8.6 has been in the Provincial Council of the Central Province and the lowest has been in the Southern Province (Mahinda Chintana, 2010). As a result, women are poorly represented in decision making, and decisions regarding administration and planning are made with no consultation with women.

3.1.3 Pradeshiya Sabha Act-1987

Pradeshiya Sabhas (PSs) form the lowest tier of the administrative mechanism of the country and have an important role in decision making, implementation and providing services relating to health, public utility services etc. This Act has been included as part of the Gender Review even though this is not an energy sector policy, because of the fact that this Act provides the framework for decentralized planning at the local level, and affects all sector policies, including energy.

The Pradeshiya Sabha Act was adopted ‘with a view to provide greater opportunities for the people to participate in decision making process relating to administrative and development activities at a local level; including specification of powers, functions and duties of such Sabhas’. The background to this Act was the National Declaration for Local Government (2007), which endeavours to narrow down the rural-urban development gap removing imbalances in regional growth and to develop and implement area based plans (Musafer, 2010). This Act is an important policy window for participation of people in decision making processes.

Pradeshiya Sabha, as specified in the Act, is responsible for the regulations, control and administration of matters relating to public health, and public utility services, all of which have intrinsic linkages with energy. The gender gaps and opportunities in the Pradeshiya Sabha Act are quite similar to the Provincial Energy Statutes. For example, while the Pradeshiya Sabha Act provides an opportunity for area-based development, it does not go on to clarify how local level planning should incorporate principles of social and gender equality; and what mechanism to use for data collection, planning and monitoring and evaluation. This is possibly due to the assumption that democratic process gives equal opportunities for everyone, men and women equally, irrespective of the social and economic inequalities. In reality, the gender inequality that exists at all levels from households to the communities is a barrier to effective participation of women. The participation in local level development decisions is influenced by the existing power relations between men and women. Therefore unless specific measures are spelt out for women’s participation, they are likely to remain in the background.

3.1.4 The Electricity Act

The Electricity Act of 2009 provides guidelines for development and coordination of the generation, transmission and distribution of electric energy and it vests the Ceylon Electricity Board with mandate to generate, transmit and distribute electrical energy to reach all categories of consumers, to collect the tariff as approved by the Public Utilities Commission of Sri Lanka. The Act includes, among others, the following¹²:

- The provision of 24 hours uninterrupted electricity for all at all times
- The adoption of a transparent tariff policy acceptable to the Government, consumers and utilities to ensure reasonable cost recovery
- Update of provisions to be compatible with the latest technology advances and to protect the rights and advances and to protect the rights and safeguard the interests of consumers.
- Making the Ceylon Electricity Board more efficient and effective, while being made accountable for its functions to the general public, consumers and the government.

The Electricity Act envisages supplying electricity for lighting and other services to its ‘customers’. As such, it does not differentiate between different end-uses within the household. In not recognizing the range of energy intensive tasks that women are involved in, which could potentially benefit from electricity services, it misses out on the positive impact that electrification could have on women’s lives.

¹² http://powermin.gov.lk/english/?page_id=1222

The present supply-side electricity delivery limits the potential contribution of energy services in areas of education, health, value addition to agricultural production etc. The EnPoGen Study undertaken in Sri Lanka showed that even though the impact of electrification by using electrical appliances is positive for the poor, the benefits are restricted due to restricted purchasing power. The Study showed that most poor families have basic equipment such as indoor lighting (100 per cent), radios (90 per cent) and TVs (63 per cent), while women could potentially benefit greatly through electrical cookers, water boilers, and mixer-grinders (Masse 2002). Studies elsewhere have shown that electricity when used for water pumping can help women save time. Electrified water-pumping to central places in villages in Zanzibar led to women saving three hours a day (Winther, 2009). In Zanzibar villages, when girls were freed from their task of collecting water, parents started sending their daughters to school like boys (Winther 2006 and 2008). In Mali, women were able to save two and a half hours a day on processing grains when traditional hand-milling was replaced by a diesel-driven mill (Porcaro and Takada, 2005). This implies that for optimum use, supply of electricity needs to be combined with efforts to ensure that men and women are able to purchase and use the appliances they need.

The document states that 'instead of being fully structured and insensitive to the 'public opinion', the policies formulated by the political establishments are expected to bring in the views and support of the 'public' to the electricity sector.' However, in reality, women's engagement in the electricity sector policy dialogue is scant and women's representation, either directly or through women's organizations.

The licensing system for off-grid electricity enables 'co-operative societies owing and maintaining distribution facilities within off grid village hydro schemes to obtain distribution licenses'. The authority vested in off grid electricity distributing CBOs is a potential vehicle for empowering local men and women. However, in the currently existing male dominated decision making forums, it is unrealistic to expect women to express their opinions freely using the space offered to the 'public'. Opportunities offered to 'consumers', 'villages', 'co-operative societies', and 'public' are all too often used by men to present their own views and at the same time, 'represent' women.

The Electricity Act has provisions for consumer protection, safety and quality of supply. These are institutional spaces that can be used or engaging with women. For instance, the Act states that 'a mechanism to handle special complaints such as regular blackouts, regular brownouts, damage to equipments caused by poor supply quality should be well published through the licencees' media as well as by the PUSL'. In many instances, information on such provisions does not always get communicated to the poor and particularly to women. Especially in remote areas, consumer rights and obligations are not known to men and women and hence the consultation between formal institutions and men and women are not meaningful.

The public engagement that is being expected requires a 'Consumer Consultative Commission'. This is also an area which requires special attention because educating the 'public' is a difficult task to handle. The Substantial improvements are needed to the policy framework to allow CEB to become a service provider responding to specific issues and to resolve them with stakeholder partnership.

3.1.5 Sri Lanka Sustainable Energy Authority Act (No. 35, 2007)

The SLSEA is a statutory body under the Ministry of Environment (formerly established under the Ministry of Power and Energy). The SLSEA Act directs the Sri Lanka Sustainable Energy Authority (SLSEA) to develop renewable energy resources; implement energy efficiency measures and conservation programmes; and to promote energy security, reliability and cost effectiveness in energy delivery and information management. The powers and functions of the SLSEA include assisting the Minister in formulation of the national energy policy; developing renewable energy resources and projects; developing conducive environment for promoting investments in renewable energy, energy efficiency and conservation; preparing development plans for renewable energy; conducting studies; and monitoring and approval of RE projects.

Among other areas, this policy includes a focus on rural areas, conserving environment, increasing employment through use of electricity and community management of projects. This latter provision brings the projects nearer to the people and hence provides a possible space for addressing gender and inclusion aspects.

Among the measures stated to be undertaken, provision of “basic domestic energy needs of the rural population, by making available affordable energy services to rural and remote areas of the country which have no access or a limited access to modern and commercial energy services” is indicated as a priority area. As with the other policies, which seem more focused on electricity, this too does not explicitly recognize the role of cooking energy or biomass in the household sector, especially for the poor. The cooking end-use is perhaps subsumed within “basic domestic energy”, however it is not specifically mentioned. Furthermore, while the word electricity appears on almost every page, the words ‘cooking’ and ‘biomass’ do not appear at all, symptomatic of the emphasis to these.

In developing off- and on-grid projects, the SLSEA has the mandate to undertake measures to mitigate the environmental and socio-economic consequences of power projects. It would be useful to have guidance and guidelines to highlight gender differentiations in how men and women are affected by these projects, from the stage of resource identification to the implementation of RE projects.

In case of off-grid projects, the Act specifies the need to undertake a “socio economic survey of those who will benefit from the project”. An important element of the socio-economic benefits is how men and women benefit from energy services and how these can be maximized. This aspect however needs to be identified clearly as an area to be examined during the surveys. Electricity has the potential to ease some of the arduous, subsistence tasks that women undertake, however, in order to facilitate that, the baseline surveys must clearly map such energy needs of women that energy services can ease and energy projects offer interventions to do so. The gender differentiated socio-economic data and profiling of beneficiaries will also help monitoring and evaluation of RE projects.

In off-grid projects, experience has shown that when women are involved in decision making and project management, it offers an opportunity to empower them. The ECSs can potentially have good representation of women in when registering them with the Provincial Energy Ministry. The procedure of approving projects, their confirmation and follow up supervision should have a gender inclusive project process.

3.2 Gender Review of selected Energy Programmes and projects

An assessment of three national energy programmes and projects was carried out; Electricity Distribution and Network Development and Accessibility Improvement Programme; ‘Gramashakthi’ Provision of Improved Energy Services to Rural Communities, and Policy Innovation Systems for Clean Energy Security project.

3.2.1 Electricity Distribution and Network Development and Accessibility Improvement Programme

This programme launched an aggressive electricity grid extension program intending to reach 100 percent electricity access by the end of 2016. A separate project for each Province was developed with financial assistance from international lending organizations and Government of Sri Lanka funding. During the year ending 30 November 2012, 254,225 new electricity supply connections were established with the completion of nearly 876 new rural electrification schemes and 7020 Extensions (personal communication, SL SEA). Rural Electrification projects were implemented under the theme of ‘Lighting Sri Lanka’, or *Vidulamu Sri Lanka*, covering a number of provinces; and the Accelerated Rural Electrification Project aimed to cover villages that are not being covered under the above projects.

The implementation of these projects is handled by the Ministry of Power and Energy through CEB's decentralized setup. In order to obtain connections, poor households are encouraged to obtain low interest loans through two mechanisms:

- In partnership with the 'Samurdhi' poverty alleviation programme¹³, low income households can get loans from Samurdhi banks upto Rs. 30,000 to cover the electricity service connection cost.
- A micro-credit based last-mile electricity connectivity programme, with support from the Asian Development Bank, in parallel with the CEB Samurdhi Authority programme. The credit facility enabled women to contribute their share for the upfront connection cost of electricity.

The focus of the programme is on providing households electricity for lighting.

The programme works on the premise that decisions on electricity usage will be made by men and women irrespective of the differences in terms of their energy needs for enhancing labour efficiency, reducing household work load and improving income earning opportunities. Furthermore, opportunities for making use of lighting facilities for income generation could be enhanced through partnership with other programmes and organization like the Women's Bureau and the Enterprise Development Board that can help build skills of women and households to establish remunerative work. The project goal of 'lighting Sri Lanka' needs to be expanded providing financial support to the poor including women. Energy access is tied up with the 'Samurdhi' loan scheme and for furthering women's earned income share in the respective households. The electricity consumption monitoring could also be expanded to gauge the share of electricity contributing to enhancing income and labour efficiency using a gender differentiated framework.

3.2.2 Gramashakthi: Provision of improved energy services to rural communities

The 'Gramashakthi Programme' is an innovative approach to provide electricity access to low income families who are unable to get access to the national grid through the Lighting Sri Lanka programme. This is operated on a loan scheme introduced under 'Viduli Athvela'-(electricity access support scheme). The programme has three objectives:

- To provide electricity to rural communities (covering around 40,000 households) that are inaccessible through the national grid by using renewable energy sources and technologies;
- To provide improved energy services to the underserved communities; and
- To eliminate kerosene-based lighting by providing off-grid energy solutions.

The programmes targets 'Samurdhi' recipients (subsidy-receiving households) with a grant in the range of LKR 10,000 to 30,000. Services provided are primarily limited to lighting, but include other minor applications like mobile phone charging, and power for TV/ radio. Two approaches are followed, the basic need fulfilment approach (which includes grant for basic lighting, phone charger, and/or an LCD television) and the enhanced energy service approach (which includes a higher number of light points, minor appliances and television). Within each of these, three service packages are offered. The selection of package is made by the households depending on their own needs, size of monetary contribution needed on their part and their ability to get a loan from 'Samurdhi Banks' in order to

¹³ The Samurdhi (or Prosperity) Programme was launched in 1994 as a national strategy to alleviate poverty, and the Samurdhi Ministry was established. Funded by the Government, this poverty reduction programme covers one-third of the population, about 1.2 million poor families. The main thrust of the Samurdhi Programme is poverty reduction by ensuring participation of the poor in the production process. SAMURDHI Program operates along three approaches: proving safety nets (Subsidies - Insurance schemes), rural infrastructure development, and income generating and banking, including micro financing facilities to income generating activities. (<http://samurdhidept.gov.lk/more12.html>)

contribute their share. The poorest normally select two item package basic lighting and power for charging phone.

Gender gaps and opportunities in the programme are as follows:

- The programme enables the poor and underserved communities, including women headed households receiving Samurdhi assistance, to select service combinations they want and thereby decide the financial burden they can afford to get access to energy services, which is a positive feature of the Programme.
- In principle, the process followed in identifying households, approving the package and grant allows women to discuss their needs on issues such as their preference in deciding places for fixing interior light points. However, in practice, men are the points of discussions when extension services are provided, which means that women are only involved indirectly in these decisions. In Rambukoluwa micro-hydro project, during the initial stage, the project concentrated purely on lighting requirements without looking at the energy needs of women. Later on, discussions with women and programme staff encouraged the technical staff to enable women use the electricity generated during the day time for other activities like grinding grain and water pumping.
- Women are not trained to handle technologies and to manage the resource base, which has a negative effect on management of the systems because women were unable to use their capacity to manage the local resource based operational systems like pico and mini grids in particular.
- The investments made in this project have been rationalized in terms of the economic benefits from avoiding kerosene usage, which is provided as subsidy. It has however not identified benefits related to health, education, intra household environment and improved indoor air quality that can contribute to improving the quality of living of women.

3.2.3 Policy Innovation Systems for Clean Energy Security (PISCES)

The Policy Innovation Systems for Clean Energy Security (PISCES) Project (2007-2012), funded by the UK's Department of International Development (DFID), was implemented with the aim of contributing to innovation and providing new policy relevant knowledge, data, tools and policy frameworks leading to better practices, helping the poor.

With this overarching aim, Practical Action Consulting (PAC) in collaboration with the Sri Lanka Sustainable Energy Authority (SLSEA) undertook several activities, in areas of biomass energy, including technology development and livelihood security; in research, experiments, pilot studies, and technology up-scaling and policy facilitation. The basic premise of the PISCES project is that livelihood security of the poor is governed by energy, water and food security, with bio-energy situated at the intersection of the three.

Biomass, as a cooking energy fuel, contributes to food security for over 80 percent of the population, an area where women's labour is concentrated. The project carried out gender-integrated context analysis for promotion of wood gasifier stoves, testing ethanol stoves, assessment of biomass use in industry and institutions, in formulation of indoor air quality (IAQ) guidelines, and in scaling up of biomass resource assessments in 3 provinces. Specific areas that had distinct gender dimensions include biomass; technology (improved stoves); and the kitchen environment. The experience suggested ways to improve statistical models for decentralized energy planning and encouraged provincial energy departments and divisional planning units to collect gender disaggregated data on energy. The local experience based learning helped to highlight gender specific features of biomass energy that need to be taken into account in developing clean cooking energy technologies which are not been taken into consideration in the national policy.

Hence, the project developed a framework for collecting gender disaggregated data, documenting the process of change, designing technology, introducing monitoring and evaluation frameworks with qualitative and quantitative indicators for illustrating behavioural changes. It is planned that the lessons learned will be integrated in implementing future activities like testing of improved technologies by engaging women.

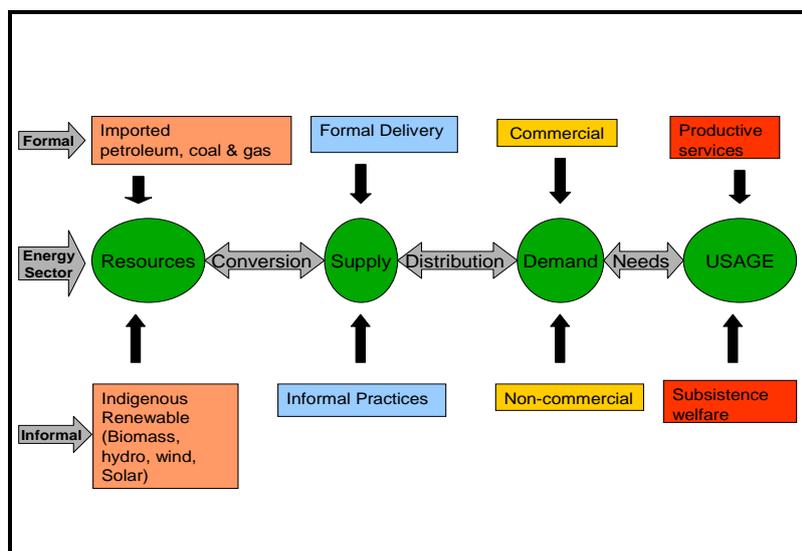
3.3 Gender in energy sector institutions

The energy sector in Sri Lanka has a multi-institutional composition, and involves several national level institutions, including the Ministry of Power and Energy along with Ceylon Electricity Board, Lanka Electricity Company, Lanka Coal company, Polypto Lanka, Sri Lanka Energies, Sri Lanka Sustainable Energy Authority, Atomic Energy Authority and Lanka Transformers Limited; Ministry of Finance and National Planning; Ministry of Petroleum Industries and the Public Utility Commission.

The Ministry of Power and Energy (MOPE) is at the centre of energy planning, development and management, and hence has an important role to play in gender inclusive development through its mandate of formulating policies, programmes and projects on power and energy.

The existing institutional structure is not entirely favourable to women's involvement in the energy sector. As shown in Figure 5, the energy sector can be presented in four looped segments: energy resources, supply, demand and usage, which are largely supported by commercial energy sources and formal large scale operations. In practice, women are engaged more in the lowest stream that revolves around biomass. In dealing with biomass fuels, women's operations are informal, most non-monetized, metabolic energy driven and largely invisible.

Figure 1. Energy sector operations flow chart



Source: Wickramasinghe, 2010 (Information source on composition: Energy Balance of Sri Lanka, 2009)

The Ministry of Power and Energy has a mission 'to provide electricity for all and to meet the demand for energy services with affordable, reliable, diverse, safe and environmentally acceptable choices for the people of Sri Lanka. Such services are to be provided in the most economically and socially efficient manner, thereby promoting sustainable economic development and social well-being of the country'¹⁴. While women are not mentioned specifically, the term *socially efficient* could mean addressing gender related inequalities and biases. Discussions carried out with MOPE and SEASL however suggest that these institutions consider that they have neither the mandate nor the capacity

¹⁴ http://powermin.gov.lk/english/?page_id=1391

to integrate gender issues into the energy sector. The monitoring and evaluation is designed to measure the delivery of electricity services, number of consumers covered and the physical infrastructure development. As a result, no financial allocations are made to enhance the skills, institutional capacity, material compilation and for monitoring and evaluation on this issue.

The institutional composition shows that less than 1 percent of the professionally qualified engineers is women and that women account for less than 2 percent of the staff and most are in research divisions (personal communication, MOPE). Even though two members of the MOPE staff and 4 members in SEASL have obtained short-term training on gender, they reported to have no skills to undertake training (personal communication). In the absence of a committed policy framework for gender mainstreaming, any consideration to gender issues has been restricted to few projects.

As an organisation, CEB's primary responsibility is to extend electrification to the Sri Lanka people and gender inclusion is not a priority area of CEB. Over the years, it has however taken initiatives to increase awareness on energy efficiency measures and risk management, issues that concern women closely. At the same time, through ADB support, CEB has implemented a few initiatives that have focused on enhancing the inclusiveness of electrification efforts. One of these was the grant Power Fund for the Poor, which complemented the Power Sector Development Program, and ensured that poor and marginalized households—including those headed by women—could access electricity services. The grant piloted a sustainable microfinance revolving fund that allowed poor households to amortize the up-front capital costs required to electrify their homes. Apart from this, CEB does implement a few social campaigns such as electrification of religious institutions, however, there is no emphasis on gender. The annual report for 2012 (the latest available on the website) makes no mention of women. While it presents, in the personnel section, a breakup of staff by age and length of service, a gender break-up is not provided¹⁵.

3.4 Gender in ADB's Energy sector priorities in Sri Lanka

ADB, as a major development partner, assists in strengthening the power sector, and extends its support for clean energy development, energy efficiency improvements electricity network improvement, and rural electrification. ADB power sector development programme provides support for the energy sector in its effort in reducing the dependence on power sector on fossil fuel energy and to meet the growing demand for electricity at a low cost and acceptable reliability rates, and attaining long term sustainability. Its priority areas include: (i) transmission infrastructure; (ii) clean energy and network efficiency improvements; and (iii) energy efficiency improvement; and (iii) renewable energy development including solar power development, energy access for the poor and energy access in post conflict areas.

During the recent past, ADB has contributed to energy sector development in Sri Lanka with broader perspectives such as sustainable power sector development, renewable energy development, energy efficiency and conservation, and poverty alleviation. Over 17 energy projects have been supported by the ADB as of 31 December 2012. These projects illustrate the alignment between ADB Country Partnership Strategy (CPS) for 2012 -2016 and the Mahinda Chintana framework. The energy sector strategy is focused on pillars of (a) inclusive and sustainable economic growth, (b) catalyzing private investment and enhancing the effectiveness of public investments, and (c) human resources and knowledge development (ADB, 2013).

Gender equity is one of the five drivers of change in the Asian Development Bank's Strategy 2020 (ADB 2008b), and will be supported by addressing gender concerns in ADB operations and designing gender-

¹⁵ CEB Annual report, 2012. Available at <http://www.ceb.lk/sub/publications/annual.aspx>

inclusive projects. Delivering gender outcomes in education, health services, clean water, better sanitation, and basic infrastructure that promote women's empowerment is emphasized.

In the energy sector, ADB project, Power Fund for the Poor (PFP), was initiated in 2004 by the ADB with grant assistance from the Japan Fund for Poverty Reduction (JFPR). The pilot PFP was designed with the objective of providing electricity grid connections (EGC) to poor households in areas accessible to the national grid where, due to lack of funds to meet initial costs involved in obtaining a connection, households had failed to connect to the existing grid. The project sought to aid poor households through a micro-financing scheme that provided them with the credit they need to overcome the high initial cost of connection to the local electricity grid. The revolving microfinance fund was supported by three complementary components that addressed capacity building and public awareness; project benefits and poverty impact monitoring; and administration and coordination. The maximum size of an individual sub-loan was LKR 15,000, which was expected to cover the CEB connection costs and internal wiring. A household was expected to make a contribution of 20 percent of the total cost, leaving the loan to cover 80 percent of the cost. ADB financed the Power Fund for the Poor through a \$1.5 million grant from its Japan Fund for Poverty Reduction. The fund targeted poor households that are within the range of the grid but could not afford the connection costs of \$130–\$170 to access it. The pilot project was implemented in eight districts in south and central Sri Lanka and by the end of the programme, the original target of reaching 8000 households was exceeded. The promotion of the program and the handling of the loans were mostly undertaken by a nongovernment organization with a track record in rural development activities. SLRs90 million (about \$0.8 million using the 2008 exchange rate) was disbursed, enabling 6,690 village households to complete their household wiring and obtain connections to the Ceylon Electricity Board grid. The project impact included reduced energy bills for more than 50% of surveyed beneficiaries; reduced women's workload through purchases of end-use energy technologies such as irons and blenders for grinding spices; increased income for newly electrified microenterprises, including through the introduction of refrigeration in food preservation; increased agricultural production with the introduction of pumped water for irrigation; and extended study hours of children at home as a result of household lighting. A key challenge identified was the need for better pro-poor targeting of beneficiaries and assessing their ability to repay loans.

The poverty impact and benefit monitoring indicate benefits to basic needs – increase of leisure time, study time, indicators of changing quality of life patterns, costs savings (from kerosene) and even some livelihood benefits, with probable long term improvements to be expected (CEPA 2008).

A gender breakdown of some of the SEEDS loans taken indicate that more men have taken the loans. Most MFIs as a rule indicate that their clients and society members are predominantly women and that payback rates are better with women. Therefore in this situation, the fact that there were more male loan takers is related to SEEDS making available this loan outside their usual society networks and the CEB requirement that connections are given in the name of the head of the household. As majority of the head of the households tend to be male, the loans reflect this trend (CEPA 2008).

During 2009–2011, ADB support in Sri Lanka demonstrated significant gender-related outcomes. The North-East Coastal Community Development Project and North-East Community Restoration and Development Project, in conflict and tsunami-affected areas of the north and east, and the Secondary Towns Rural Community-Based Water Supply and Sanitation Project in the north central region achieved positive results that contribute to gender equality.

ADB's Rural Electrification and Network Expansion project aimed to ensure even distribution of economic growth in the country by providing electricity to rural areas currently not covered by the national grid, enhancing opportunities for economic activity, health conditions and education in rural areas. The Sustainable Power Sector Development Project currently being implemented includes several components: transmission system strengthening to further improve its energy efficiency and reliability and enable rural electrification in the Eastern, North Central, Southern and Uva provinces of

Sri Lanka; rural electrification and distribution system improvement in the Eastern and Uva provinces of the country to expand access for the poor and rural households; and energy efficiency and renewable energy development. Technical assistance is focused on economic growth, environmental sustainability, and private sector development. An outstanding feature of the Project is its focus on effective gender mainstreaming.

4 Gaps, opportunities and recommendations

4.1 Gender Equality Issues that affect women's ability to benefit from Energy interventions

Gender equality issues in energy are associated with the gaps that exist between the energy paradigm and the local contextual base, where women have a key role as energy managers for their homes and for the small enterprises they operate and the livelihoods they are engaged in. Issues that hinder their participation in energy sector management and affect their ability to benefit from interventions can be summarized as follows:

- Since women are largely involved in the non-commercial (and non-monetized) energy sector, the key equality issue is their invisibility and deprivation in the formal sectors. This situation deepens due to lack of gender sensitive policy framework and opportunities for women to engage in mainstream activities, including those in the energy sector.
- Another issue is the lack of support services for enhancing women's capabilities to engage in formal system of engagement and consultations. Women's extremely low representation in decision making bodies obstructs their engagement in formal communication channels and consultation processes.
- Inequalities in financial capacity, women's low/lack of income hinder their decisions on energy sources, usage and appliances. Field discussions held in Mahaoya with a group of women in January 2013, stated that, 'even if electricity comes to our village, we are not in a position to get service connections to our houses; and even if the service connections are secured using Samurdhi loans the maximum usage will be limited to lighting because we have no capacity to purchase even an iron or a grinder to help our work'.
- The inequalities in women's knowledge on modern sources of energy, clean energy technologies, legislature, policy frameworks, conservation incentives and energy efficiency measures impede women's engagement as managers, and in consultations for claiming their rights to have sufficient quality in services. The reasons for using three stone hearths by women instead of semi enclosed mud-stoves were not economic, is largely due to the lack of information on the improvements and efficiency of using such locally adoptable solutions. In remote areas in Mahaoya women are not aware of the provisions made available for them to get Samurdhi loans and the grant given by the government for establishing solar home systems for eliminating their use of kerosene. This situation suggests that lack of energy extension services is an obstacle preventing women from getting benefits from various interventions.

As far as energy sector policies and programmes are concerned, most policy documents are silent on gender, with the focus on 'people' (terminology used is households, people and families) with an implicit assumption that women are included within people. The assumption is that men and women benefit equally from electrification and implicit is that is the assumption that men and women have equal capacities to use electricity for satisfying their needs. A specific category that misses attention is the women headed households that constitute 20 percent of population; women of internal displaced communities in the North and the East and the women in unpaid labour category. This is driven by three main reasons; the first is the thinking that energy is a gender neutral commodity, available and equally accessible by men and women. The second is lack of understanding on gender specificities related to men and women in society, economies and livelihood and in the environments. The third is lack of institutional capacities to link energy with gender.

The State supports the Provincial Councils to harness local energy sources for household electrification. In doing so, consulting men and women in planning electricity projects on issues of resource use etc. is not practiced, except in few locations that are managed by NGOs and community-

based organizations. For example, the Rambukoluwa micro-hydro project started with the project, without prior informed consensus of the local community, which adversely affected the supply of water used by women for drinking, bathing, washing and for irrigating crops grown during the dry season has been used for without getting prior informed consensus. Women contributed labour, but their specific needs and interest in electricity were not taken into account.

An important policy issue is that the national policy is silent on cooking fuels and biomass and it is mentioned as a source commercial energy. Failure to draw attention to the biomass that contributes nearly 50 percent to the total energy supply, and affects majority of population, is a gap in the policy. At the same time, commercial development of biomass for renewable energy remains as a promising avenue for women to engage in energy enterprises. However, this will become a reality only if the existing biomass energy resource management practices, local knowledge of women and women's land based occupation are integrated into energy planning. This also applies to biofuel development suggested in the NEPS. Women's close contacts with local resources and their land based occupations are to be recognized as assets for translating such policy elements into action. Accordingly, targets and the subsidy structure introduced for electrification also need expanding to include cooking fuels and clean cooking technologies.

4.2 Good practices in integrating gender in energy service provision: lessons from experience

Over the years, non-governmental organizations like Practical Action; IDEA; Energy Forum; NANAGE and some CBOs such as Electricity Consumer Societies of Dawatagala and Rambukoluwa have made attempts towards integrating gender in energy projects. Lessons on gender equality can also be found in other areas; agriculture, rural financing, forestry, and resource rehabilitation.

4.2.1 Matale Regional Economic Advancement Project

The IFAD funded Matale Regional Economic Advancement Project (M-REAP) aimed to provide micro finance services for the poor including women and their organizations, to strengthen their capacity for enterprise development and to enter the market economy (Wickramasinghe, 2005). Programme components include: block loans to financial institutions to extend credit for enterprise development; grants to grassroots women's organizations to disburse loans to members through a revolving system; individual loans and direct grants for enterprise development. Micro enterprise development programme provided vocational and technical training for women, market access and financial services.

The programme helped women in many ways; they have been successful in securing credit for income generation activities, mechanisms like group collateral started, and a savings culture has started. 37 women's organizations received grants to operate credit schemes for supporting women's income generating activities. Women started enterprises, improved their production through improved technologies and expanding home-based production to market enterprise. Around 80 percent of the credit given was successful: most managed to either adopt new technologies or part-mechanized the production process by getting access to electricity. Women who started with home based enterprises secured electricity service connections through saving, and then secured machineries to speed up the production process and output and finally turned the small-scale home based food processing to a commercial scale industry.

Some of the lessons learned from the Project are as follows:

- Women need to be supported over a long period of time, with continuous hand holding and mentoring.
- Credit for women provides a stepping stone for women to enter the market economy.

- Once women start to earn an income, households make adjustments enabling women to get support from men to enhance supply to the markets. In many cases, gender relations changed recognizing women as lead entrepreneurs, income earners and business managers.
- Extended hours of work, improved quality of products, increased output, labour efficiency and the reduced drudgery of manual work are the results of use of electricity for production enhancement.
- Growth in home based enterprise helps create job opportunities for women in the neighbourhood so the rolling effects of credit for women's enterprise development worth recognising.

4.2.2 Kaikawala Village Hydro Project

Kaikawala is a remote village located in the Udadumbara Divisional Secretariat Area of the Central Province in the periphery of the Knuckles Conservation Forest. With a population of 85 households, the village is difficult to access. Getting access to grid electricity has been beyond the capacity of the villagers.

The Kaikawala Village Hydro Project (KVHP) was implemented in 2008 by the Energy Ministry of the Central Province under the RERED programme. The responsibility of managing the power supply plant is vested on the Electricity Consumer Society, which has 52 percent women and 48 percent men as members. Each household pays a monthly fee which goes to the fund maintained by the society for maintenance work as required.

Supply of electricity has improved the quality of lives and the environment. Electricity is used for lighting and charging telephones. Eighty percent of households have televisions and most have radios as well. Less than 30 percent use electricity for ironing, boiling water and cooking rice and a few households use grinders and blenders occasionally during the day time. Electricity generated during the day time is being used for livelihood activities: a village rice mill and two grinding mills operate on electricity and around four small shops run by women use electricity during the business hours. Electricity access has reduced the household expenditure on purchasing kerosene.

Availability of electric lighting is reported to increase mobility; enable children to study in the evenings; access to information; improved communication, enhanced learning opportunities and social interactions. A feeling of safety and security was reported as an important benefit by women and children.

Some of the lessons learned from the Project are as follows:

- Cooperation of the households and willingness of men and women to invest their time in energy projects was secured through continuous consultations with men and women and their confidence that their specific needs will be met. Both men and women participated actively and contributed their labour during the construction phase.
- Overt recognition that the resource base for electricity generation is a commonly owned one in which women have a role to play, gives a feeling of ownership and responsibility over RE resource management.
- Household being a management unit encouraged both men and women to contribute. From each household, either a man or a woman participates in the ECS activities.
- Use of electricity for improving income is mostly handled by men due to the conventional practice of men handling money and productive use of machinery. This highlights the need for introducing special options of energy based production work for women to use electricity for improving their income.

4.2.3 North East Coastal Community Development Project Loan No. 2027 (2004-2007)

The Sri Lanka North East Coastal Community Development Project (NECCDEP) (ADB 2010b) aimed to reduce poverty and meet basic needs in three conflict-affected provinces, by improving sustainable

livelihoods and the management of natural resources. The project specifically focused on women, given the high number of households headed by females in the conflict-affected region. Project activities included sustainable livelihood improvement through skills training and microcredit, and meeting meet basic needs through small scale; managed by the community; natural resource including coastal resource planning and fisheries development.

A comprehensive gender action plan (GAP) was included in the loan design and strategies were included to facilitate women's participation and ensure that activities identified and responded to their needs. Targets were set for women's participation in all activities, at least 50percent of civil and small-scale community infrastructure activities were to meet women's needs, based on priorities to be identified by women and incorporated in the village development plan (VDP); all project-related training to include a module on gender awareness; gender-sensitive selection criteria for project specialists, implementing partners, and service providers for the livelihood program; voluntary labour was structured so that women could adjust timing around other responsibilities.

The gender results include the following:

- Of the total 661 community-based groups formed or strengthened under the sustainable livelihoods improvement component, 277 or 42percent are women's groups, registered with the local government so that further support can be sought once the project is closed.
- The 30 percent target for the representation of women on district level steering committees was not met, as more focused leadership training for women would have been necessary to encourage more women to take up what is considered as nontraditional roles in decision-making positions at the community level.
- Of 26,372 beneficiaries participating in developing VDPs, 32percent (8,415) were women.
- A total of 21,539 loans for livelihood improvement were processed through groups with 96 percent (20,790) given to women. A total of 2,552 households headed by females received credit.
- Overall 13,546 people have attended livelihood and enterprise development training programs, of which 57percent (7,761) were women.
- Thirty-two percent of the 2,517 civil and small-scale infrastructure projects have addressed women's specific needs (e.g., common wells with easy access to clean water, production centers for new livelihood activities, multipurpose buildings, markets, preschools, and women's shopping complex).
- Women's groups have carried out 171 of 1,987 infrastructure works. Women have applied new skills from the project to develop and cost bids on other contracts tendered by the local government for small-scale infrastructure.

4.3 Recommendations: Strategies to strengthen women and reducing gender inequalities

In order that women participate in and benefit from energy sector interventions in a meaningful manner, the following recommendations are made:

- *Mainstream gender in energy sector policies*

Align energy sector objectives and strategies with national development priorities and goals (e.g. the Mahinda Chintana vision) on empowering women, and reducing inequalities between men and women, thereby enhancing women's roles in the energy sector. For example, the National Energy Policy and Strategies should specifically address the differences between men and women in energy needs and access to resources.

Gender awareness and analysis inputs should also be included at the level of regional energy policies. The prevalent region-based development model of the country provides a framework for making development policies and interventions responsive to local contexts, issues and needs, including those of women. The Provincial Statutes could promote gender mainstreaming in decentralized energy planning processes and the Electricity Consumer Societies, which enable community members to participate in small scale energy supply.

- *Establish gender sensitive targets and indicators for energy programmes*

Integrate gender aspects in energy planning processes, supported by guidelines, tools and financial allocations. Energy programmes need to have clear targets, outcomes and monitoring frameworks that consider women and disadvantaged groups. This can be facilitated by adding gender specialists to programme teams. For example, the Electricity Act does not differentiate between different end uses within the household. In not recognizing the range of energy-intensive tasks that women are engaged in, it misses some of the positive impacts that electrification could have on women's lives.

A positive example is the 2007-2012 Policy Innovation Systems for Clean Energy Security Project (PISCES), which provided new information in the area of biomass energy, including the roles and responsibilities of men and women regarding energy and their technology needs. The project's analysis of biomass use and stove technologies led to the development of a framework for collecting gender disaggregated data, designing desired technology, and introducing monitoring and evaluation frameworks with indicators illustrating behavioural changes. It is planned that the lessons learned will be integrated into future activities such as testing of improved technologies by engaging women.

- *Ensure participation of women in energy plans and programmes*

Stipulate targets for representation of existing women's associations and women's NGOs in energy policy planning through public consultations, and provide leadership and confidence building training to these organizations to ensure their effective participation in the public consultations. In addition, energy infrastructure programme documents should set out explicit objectives for women's energy access, participation in managerial and decision making, and labour mobilization. The programme documents should also specify time frames, budgets and human resources needed to achieve this, including training of personnel, and appropriate implementation and organizational procedures.

Surveys, evaluations and sector reviews provide strategic entry points for women's input. The Sri Lanka Sustainable Energy Authority Act specifies the need to undertake a socio-economic survey of those who will benefit from a project. An important consideration is how men and women will benefit from energy services and how the benefits of each can be maximized, and this sort of information needs to be identified clearly as an area to be examined. Where socio-economic studies incorporating gender concerns are done prior to implementation, there also should be clear mechanisms for linking these to programme design.

- *Provide women with energy-related information and training*

Involve women in training on technical and business development aspects of energy projects, and ensure that they have access to information on available energy options and provisions. Alternative communication channels may need to be employed for dissemination of information to women, especially in remote locations, for example, internet cafes, rural radio, women rural development societies etc.

The Gramashakthi programme offers loans to provide affordable renewable off-grid electricity to members of rural communities. In principle the process in identifying households and approving the package of services would allow women to discuss their needs, but in practice men attend the consultations and women are only involved indirectly. In Rambukoluwa, for example, the micro hydro project initially concentrated only on lighting without considering the energy needs of women. Later on discussions with women encouraged the technical staff to enable them to use the electricity generated during the day for grinding grain and pumping water. In that context, it is important for the women to learn how they handle the technologies, since without training the women cannot manage the systems for such uses.

- *Establish targeted programmes for women headed households*

Identify women headed households, who constitute over 20 percent of the population, and women from disadvantaged communities as a specific category requiring targeted interventions in energy programmes, and use awareness raising initiatives and financial instruments such as revolving loan funds, to enable the women headed households to finance the upfront electricity connection costs and costs of purchasing other energy services. Use “Result Based Financing” instruments that include performance targets on the number of women headed households accessing these loans as conditions for continued donor support to revolving funds.

- *Promote women’s use of energy for productive enterprises:*

Strengthen the capacity of women to use energy for livelihood enhancement and income generation. One of the lessons from the Kaikawala Village Hydro Project implemented by the Energy Ministry of the Central Province under the RERED programme was that it was mostly men who used the electricity for income generation due to the customs concerning men handling money and machinery. This highlights the need for introducing special options for energy based enterprises to enable women to use access to electricity for improving their incomes.

- *Develop a biomass fuel strategy*

Recognize biomass as a contributor to national energy, and request support from development partners, such as UNDP and the World Bank, to develop a National Biomass Energy Strategy (BEST). The goals of the strategy should be to ensure a more sustainable supply of biomass energy, and to implement time bound targets, milestones and financial allocations that promote access to modern fuels and more efficient biomass combustion technologies for households and small enterprises.

4.4 Recommendations for integration of gender into ADB’s energy sector work in Sri Lanka

ADB’s Country Partnership Strategy indicates that ADB’s assistance in the energy sector will focus on renewable energy development (including wind and other clean energy sources), energy efficiency improvement, transmission and distribution systems, and improving energy access. ADB will help the government in creating an enabling environment for clean power development, particularly through public private partnerships, reducing system losses, and pursuing sector reforms, including accelerating ongoing initiatives toward unbundling, and greater private sector participation.

The Country Partnership Strategy mentions that in implementing its energy sector work, gender concerns will be identified and addressed, where relevant, for project outcomes to contribute to

gender equity and equality. The future portfolio focuses on infrastructure, yet offers opportunities for gender-responsive project design. In designing and implementing projects, efforts will be made to mainstream gender in the various stages. Gender action plans and design features will be incorporated where required and relevant, and project design will include sex-disaggregated data in baseline information, for monitoring and review during implementation and in reporting on results.

As of now, the Sustainable Power Sector Support Project is the only energy sector project that has a gender component, being implemented with support from the JFPR Grant 9158 REG. It is expected that this project will yield lessons that can pave the way for gender mainstreaming for ADB's energy sector projects in Sri Lanka. Inclusion of gender into project portfolios, capacity building of energy sector institutions, financing of special components and creating opportunities to address women's needs is crucial.

The following recommendations are made to further strengthen this.

- Review current ADB project guidelines and integrate gender sensitive outcomes, targets and indicators into monitoring frameworks of energy programmes in order to ensure that project implementers take responsibility for gender inclusive energy sector development.
- Strengthen institutional capacities at the national and provincial levels in integrating gender aspects in energy planning processes by providing technical advice and gender expertise to relevant government institutions during the preparation of operational plans, programmes and budgets. Develop user-friendly manuals, guidelines, tools and training materials for gender sensitive planning, budgeting and programming. Implement gender training programs for relevant decision making and technical practitioners. Improve the quality, collection, analysis and management of gender disaggregated data in national and provincial energy initiatives for effective tracking of gender targets and results.
- Support the national government in undertaking pilots and scaling up projects that build the capacity of women to utilize energy services, including electricity, for income generation and livelihood strengthening. The ongoing JFPR Grant is a step in this direction, and the lessons from this need to be integrated into other energy sector projects and programmes.
- In all ADB energy sector projects, track to what extent women and disadvantaged groups are able to access electrification inputs. This can ensure equitable economic benefits from such projects and maximize the effectiveness of investments. (Projects also need to track other non-monetary benefits that energy services offer such as improved security, improved safety for children, more time available, and improved health.)
- In ADB projects on energy efficiency and conservation, involve women by targeting them as key "motivators" regarding energy conservation and efficiency in households and communities. Include cooking energy as a priority in energy efficiency interventions (e.g. replacing traditional biomass fuels with modern fuels and improving the efficiency of biomass use through improved cookstoves and kitchen improvements).

Engage women's groups in the formulation of energy efficiency policies and measures, ensuring that energy efficiency measures support women's income-generation activities and domestic needs

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Annex 3.

Persons/officers met

Mr. Upali Daranagama, Additional Secretary (Planning & Development), Ministry of Power and Energy.

Ms. Anuradhi, Assistant Director (Planning), Ministry of Power and Energy.

Mr. E.W.F. Illayapparachchi, Secretary, Ministry of Child Development and Women's Affairs, Colombo.

Ms. Ashoka Alawatte, Additional Secretary, Ministry of Child Development and Women's Affairs, Colombo.

Ms. R.A. Chulananda, Director, Sri Lanka Women's Bureau, Ministry of Child Development and Women's Affairs, Colombo.

Mr. Neil De Alwis, District Secretary/Government Agent, Ampara, Sri Lanka.

Mr. Najeeb, District Land Use Office, District Secretariat, Ampara.

Mr. Ranishka Wimalasena, Project Officer (Energy), ADB Sri Lanka Resident Mission, Colombo

Ms Nelum Gunasekera, Gender Specialist, ADB Sri Lanka Resident Mission, Colombo

Dr. Damitha de Zoysa, Secretary, Ministry of Productivity Promotion, Colombo

Mr. Darshana Samarakoon, Director, Ministry of Local Government & Provincial Councils, Colombo

Mr. W.A.D.S.Gunasinghe, Director, Department of National Planning, Ministry of Finance and Planning, Colombo, Sri Lanka

Mr . Wijerathna, Secretary, Department of Energy, Ministry of Power and Energy, Central Province, Kandy.

Dr. Thusitha. Sugathapala, Director General, Sri Lanka Sustainable Energy Authority, Colombo, Sri Lanka

MR. R. M. Amarasekera, Executive Director, IDEA, Kundasale, Kandy.

Annex 4. Agenda for National Level Knowledge Sharing Workshop

Gender Review of the National Energy Sector Policies and Programmes in Sri Lanka

Project:

- Sustainable Power Sector Support Project implemented by CEB
- Improving Gender-Inclusive Access to Clean and Renewable Energy Project implemented by Practical Action (ADB /JFPR)

Date: Monday 12, August 2013

Venue: The Taj Samudra Hotel, Colombo 2

08:30 – 08:50	Registration
08:50 – 09:00	Lighting Traditional Oil Lamp
09:00 – 09:10	Welcome - Dr. Vishaka Hidellage, Country Director, Practical Action, Sri Lanka
09:10 – 09:20	Opening Remarks – Ms. Rita O'Sullivan, Country Director, ADB Sri Lanka Resident Mission
09:20 – 09:35	Sustainable Power Sector Support Project – T.Thavaneswaran, Deputy General Manager, Ceylon Electricity Board – Eastern Province
09:35: 09:50	Improving Gender-Inclusive Access to Clean and Renewable Energy Project – Eng. Namiz Musafar, National Project Manager, Practical Action & Ms. Soma Dutta, International Team Leader, ETC Foundation
09:50 – 10:20	Energy Scenario of Sri Lanka: Dr. Thusitha Sugathapala, Director General, Sri Lanka Sustainable Energy Authority
10:20 – 10:50	Trends in Energy Policies of Sri Lanka: Eng. Upali Daranagama, Additional Secretary, Ministry of Power & Energy
10:50 – 11:15	Refreshments
11:15 – 12:15	Gender Review of the National Energy Sector Policies and Programmes in Sri Lanka: Prof. Anoja Wickramasinghe, Gender Specialist, Practical Action
12:15 – 12:30	Baseline Study & Project Performance and Monitoring: Ms. Sanjeewanie Kariyawasam, Consultant, ADB
12:30 – 13:00	Interactive Discussion on factoring Gender Aspects in National Energy Sector Development
13:00	Summary & Conclusion

