

# GUIDE ON GENDER MAINSTREAMING ENERGY AND CLIMATE CHANGE PROJECTS

UNITED NATIONS INDUSTRIAL DEVELOPMENT  
ORGANIZATION

Energy and Climate Change Branch

## ACKNOWLEDGMENT

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# 1. INTRODUCTION

## Why this guide?

Gender equality is a goal in its own right, but it is also vital to the achievement of other development goals such as poverty reduction and environmental sustainability.

To ensure that men and women can equally benefit from development projects and that gender inequalities in activities and outcomes are reduced or eliminated, gender differences need to be considered during the entire project cycle – from design and implementation to monitoring and evaluation.

By systematically mainstreaming gender into their interventions, UNIDO's Energy and Climate Change Branch (ECC) can ensure equal opportunities for both women and men, thus furthering UNIDO's inclusive and sustainable industrial development agenda and contributing to the achievement of the Millennium Development Goals (MDGs), and the Post-2015 development framework, as well as the Sustainable Energy for All (SE4ALL) objectives.

This guide aims at “demystifying” gender mainstreaming and providing practical guidance on how to systematically address existing or potential gender inequalities specific to UNIDO's energy and climate change interventions.

## Who is this guide for?

The guide aims at helping the staff of UNIDO's ECC Branch to apply a gender perspective to their work and, more specifically, to mainstream gender throughout the project cycle. The guide can also be useful for national and local counterparts, agencies, international and private sector partners, and individual

experts that closely work with the ECC Branch.

## How to use this guide?

It is recommendable to read the guide completely, as it provides basic concepts and an overview on gender mainstreaming in energy and climate change projects as well as guidelines to be applied during the entire project cycle. Due to the scope and diversity of the ECC portfolio, the relevance and application of this guide on gender mainstreaming may vary. Therefore, the guide must be taken as indicative and applied where appropriate.

It should also be noted that a project already in implementation can be “retrofitted” so that the ongoing activities are more gender-responsive. However, it is highly recommended that a gender analysis is undertaken at the project's inception to really understand the key gender issues and identify the best entry points to integrate gender dimensions.

Lastly, attached to the guide are various informative annexes that will help in the process of mainstreaming gender in energy and climate change projects.

*“Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality”*

*ECOSOC 1997/2 agreed conclusions*

## 2. GENDER EQUALITY AND ENERGY

### What is gender equality and why is it important?

In order for industrialization to have the desired impact on inclusive growth and poverty reduction, it must address the complex inter-relationships between gender equality and sustainable development. Poverty is now recognized as a multi-dimensional concept that encompasses the notion of inequalities in access to and control over resources including rights, political voice, employment, information, and natural resources. An important determinant of inequality in access to and control over resources is gender. Therefore, if poverty is to be reduced, one has to address gender inequalities.

Gender equality is a fundamental human right, and has been legally recognized in a number of declarations and conventions, central to which is the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)<sup>1</sup>.

A comprehensive description of gender equality is:

*“...it refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women’s and men’s rights,*

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<sup>1</sup> CEDAW was adopted by the United Nations General Assembly in 1979 and entered into force as an international treaty in 1981. By accepting the Convention, States commit themselves to undertake a series of measures to end discrimination against women in all forms,. Countries that have ratified or acceded to the Convention are legally bound to put its provisions into practice. They are also committed to submit national reports, at least every four years, on measures they have taken to comply with their treaty obligations.  
<http://www.un.org/womenwatch/daw/cedaw/>

*responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men.”<sup>2</sup>*

Although there has been substantial progress made in gender equality in the last decades, women across the world are still less likely than men to own land, livestock and other assets, adopt new technologies, use credit or other financial services, or receive education, training or technical advice. Society or customary laws often overshadow the fundamental principles of equality embodied in international conventions and result in discrimination against women and men. Women often do not have the channels to voice out their needs and priorities, and in many countries, there is a lack of institutional capacity to address gender disparities.

### Gender equality and energy

A number of issues surround gender equality and energy specifically. Most research that has been done suggests that men and women have different access to energy resources, resulting in gender-differentiated impacts at the individual, household, and community levels. As access to affordable and non-polluting energy services is a prerequisite for achieving economic empowerment and poverty reduction, these inequalities limit the economic opportunities for women, which also have considerable negative effects on their families and communities. Without access to modern energy services, particularly rural women and girls have to spend long and exhausting hours performing basic subsistence tasks, including time-consuming and physically

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<sup>2</sup>UN Women. Available at:  
<http://www.un.org/womenwatch/osagi/conceptsanddefinitions.htm>

draining tasks of collecting biomass fuels, which constrains them from accessing decent wage employment, educational opportunities and livelihood enhancing options, as well as limits their options for social and political interaction outside the household<sup>3</sup>.

Moreover, violence against women and girls can occur because of lack of street lighting at night or during daylight hours in situations where resources are scarce and women are obliged to collect fuel from remote and isolated areas<sup>4</sup>. Further, cooking from biomass in the absence of clean cooking solutions is particularly detrimental to the health of women and children who are often associated with household activities. In fact, illnesses from indoor pollution result in more deaths of women and children annually than HIV/AIDS, malaria, tuberculosis and malnutrition combined<sup>5</sup>.

In spite of this, women remain marginalized from decision-making processes in relation to energy and climate change, and gender-sensitive energy projects and research are still the exception rather than the rule. In developed countries, the share of female employees in the energy industry is estimated at only 20%, most working in non-technical fields such as administration and public relations, and worldwide women account for only 9% of the construction workforce and make up only 12% of engineers<sup>6</sup>. Furthermore, women occupy around 19% of all ministerial posts, but only 7% of these are in environment, natural

resources and energy, and a mere 3% are in science and technology<sup>7</sup>. At the same time, fewer women than men pursue training in science, technology, engineering or mathematics (STEM) - fields that provide the necessary skills for accessing many green jobs and contributing to innovation and technology development. As a consequence, the fora in which energy issues are identified, and potential solutions proposed, tend to have an inadvertent male bias.

### **Gender mainstreaming in the Energy and Climate Change Branch**

Gender mainstreaming is highly relevant for the Energy and Climate Change Branch for several reasons. First, there is a recognized need to systematically consider the impact on people of UNIDO's energy projects and to improve internal processes towards gender responsiveness, should the need emerge. . A gender blind project that does not consider the different roles, needs, opportunities and expectations of women and men in its analysis or given activity result at times in the reinforcement of gender-based discrimination.

Energy projects that are more aware of gender differences consider different questions in the choice of sectoral investments such as:

- Is explicit attention given to the energy service needs of women as well as the requirements of men?
- Is there an understanding of the impact energy investment has on people and the environment?
- Will both men and women benefit from these investments?

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<sup>3</sup> Danielsen Katrine, "Gender equality, women's rights and access to energy services", February 2012

<sup>4</sup> ENERGIA/DfID Collaborative Research Group on Gender and Energy (CRGGE), "From the Millennium Development Goals Towards a Gender-Sensitive Energy Policy Research and Practice: Empirical Evidence and Case Studies", March 2006

<sup>5</sup> IISD, "Post-2015 Development Agenda Bulletin. Summary of the High Level Meeting on Energy and the Post-2015 Development Agenda", 2013

<sup>6</sup> ILO, "Global Employment Trends for Women", 2007

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<sup>7</sup> UN Women "Gender Justice: Key to Achieving the Millennium Development Goals", 2010; and International Parliamentary Union, World Averages as of December 2011. Available at: <http://www.ipu.org/wmn-e/world.htm>

### **Joint Programme on Environmental Mainstreaming and Adaption to Climate Change in Mozambique**

In Mozambique, UNIDO has implemented the UN Joint Programme on Environmental Mainstreaming and Adaption to Climate Change together with the Food and Agriculture Organization of the United Nations (FAO), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Human Settlements Programme (UN-HABITAT) and World Food Programme (WFP).

Through the programme, renewable energy systems were installed for water supply, irrigation and electricity supply in seven different communities. Additionally, the capacity of community members was developed through training on various issues, including the maintenance of the installed renewable energy systems.

By providing marginalized communities with renewable energies and clean, accessible drinking water, women's lives were transformed by lessening the burden of fetching unsafe water and increasing opportunities for income generation and other pursuits. Due to the project's very positive impact, the Government of Mozambique and the National Energy Fund (FUNAE) have replicated its best practices and rolled out the initiative in other rural communities.

*See: [www.mdgfund.org/program/environmentmainstreamingandadaptationclimatechange](http://www.mdgfund.org/program/environmentmainstreamingandadaptationclimatechange)*

It has been shown that taking women's needs into account as a key variable in energy interventions makes it more likely that energy will have a significant impact on household and community poverty<sup>8</sup>. Gender mainstreaming in energy projects is thus critical in UNIDO's mission to reduce poverty through inclusive and sustainable industrial development.

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<sup>8</sup> ENERGIA/DfID Collaborative Research Group on Gender and Energy (CRGGE), "From the Millennium Development Goals Towards a Gender-Sensitive Energy Policy Research and Practice: Empirical Evidence and Case Studies", March 2006

Moreover, making a conscious effort to invest equally in both men and women will provide the beneficiary countries with a greater competitive advantage. They will be able to better harness the innovation and creativity of their people since the real power comes from women and men working together and collectively using their experience and skills to accelerate innovation.

Lastly, integrating a gender perspective into UNIDO's ECC portfolio ensures that existing inequalities within the context of its projects are not perpetuated, and at worst exacerbated, but rather addressed in a meaningful and effective way.

### **Energy access**

Energy projects that work to enhance access of the poor to modern and affordable energy services in rural areas are closely linked to prospects for economic development, especially for women collecting and managing the fuel in households and small-scale enterprises. Access to modern, sustainable energy services can reduce women's time and labour burdens, improve their health, and provide them with opportunities for enterprise and capacity building, among others<sup>9</sup>. Provision of lighting, for example, provides the option of extended or flexible working hours, and thereby increasing the time available for engaging in income-generating activities for women who often face substantial time constraints due to domestic work obligations. At the same time, access to energy-based technologies such as low-cost domestic appliances, power water wells, drip irrigation systems and labour saving technologies for agricultural production and

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<sup>9</sup> UNIDO, "Industrial Development Report 2011. Industrial energy efficiency for sustainable wealth creation -Capturing environmental, economic and social dividends", 2011

post-production like grinding and milling enhances labour productivity and increases the time available for engaging in productive activities outside the household. With access to such technologies women can increase their incomes and young girls, previously burdened with labour-intensive chores, can attend school<sup>10</sup>.

However, due to social and legal restrictions on women's rights, including rights to own land, borrow money and make their own economic decisions, women are often ineligible for financing for new equipment that can improve the productivity of their labour<sup>11</sup>. Further, women's economic contribution to the energy sector, such as fuel collection, is unpaid, unrecognized and undervalued; and women's patterns of energy service use are often not reflected in national statistics. As a result, energy planners are often unaware of women's energy demands, and less attention is paid to technology development and investments aimed at improving women's work in comparison to men's<sup>12</sup>.

In projects that work to stimulate income-generating activities through access to modern and affordable energy services, it is, therefore, very important to address legal and regulatory frameworks that prevent women from accessing credit and other financial services as well as access to electricity (grid and off-grid). Moreover, it is important to recognize the important role of women in the energy sector in order to ensure that services are designed for both men and women. Awareness raising and

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<sup>10</sup> SELF, "Renewable Energy Empowered Women: A SELF White Paper", 2003.

<sup>11</sup> ETC/ENERGIA in association with Nord/Sør-konsulenterne, "Gender Equity in Access to and Benefits from Modern Energy and Improved Energy Technologies", September 2011

<sup>12</sup> ENERGIA, "Where energy is women's business", 2007

### **Example: Gender mainstreaming in the Enhancing Renewable Energy Options (EREO) Project**

The EREO Project (2006 – 2011) by Practical Action and ENERGIA aimed to reduce poverty and marginalization of target communities in Sri Lanka by providing reliable renewable energy sources through three new areas of energy generation namely, liquid biofuels and pico hydro. The gender mainstreaming in the EREO project activities concentrated primarily on liquid biofuels and pico hydro initiatives.

A baseline survey provided information on the energy needs and usage patterns of the beneficiaries. Resulting from the survey, the project ensured that the views of the family as a whole were included in the project processes. Women in particular were recognized as important information assets, possessing vital information impacting positively on the design of the energy project in terms of household energy use and details on water stream flow, usage, etc.

Furthermore, an institutional analysis was undertaken to capture the current thinking and the inclusion of gender concerns in the institutional frameworks of partners associated with the project such as NGOs.

A project document review was conducted to examine how gender sensitivity was incorporated in organizational policy, programmes and initiatives of the EREO project partners, so as to provide a point of reference for the project activities.

The liquid biofuel project facilitated the engagement of the community, where women were included in all project activities, discussions and decision-making processes.

From the local assessment baseline survey conducted, it was apparent that one of the greatest requirements of the community was improved access to drinking water. With the installation of a water pump by the main road, a considerable reduction in the number of trips and time taken for women to fetch water was noted. Women in Gurugoda Village now save approximately one and a half hours per day as a result of the intervention.

Moreover, women involved in the maintenance of home gardens with fences grown with biofuel plant species were provided the opportunity to receive training in home gardening and financial support to prepare the land for cultivation.

Source: ENERGIA/Practical Action

collection and use of sex-disaggregated data could be key activities in this regard.

### **Renewable energy**

Energy projects that support the use of locally available renewable energy sources for productive uses can provide opportunities for women's entrepreneurship in local enterprises that can deliver reliable energy services based on renewable energy technologies. Women play a critical role in energy provision and consumption within households and communities in many countries, and therefore possess valuable knowledge relevant to sustainable energy solutions. Moreover, women can draw on their natural circles of family, friends and community for customers, which has been shown to be an effective way of distributing renewable energy technology to rural households<sup>13</sup>. Thus renewable energy projects can enhance women's economic autonomy and social status, allowing them to make an income and giving them the opportunity to take part in and drive sustainable development of their local communities.

More so than men, women entrepreneurs, however, face barriers such as lack of access to information about new forms of energy; lack of education and training on business management and technical aspects of renewable energy technology, and lack of access to credit and other financial services necessary to start-up businesses. Moreover, in some countries gender stereotypes in the labour market reinforce the conception that modern energy technology businesses are "men's work", while women are expected to operate more traditional, and less profitable, biomass-based micro-enterprises<sup>14</sup>.

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<sup>13</sup> Solarsister.org

<sup>14</sup> Danielsen Katrine, "Gender equality, women's rights and access to energy services", February 2012

Project managers need to take conscious steps to minimize these problems as well as highlight the issue to the SMEs they work with. It is important that projects focus on training both women and men as well as changing stereotypical perceptions of women's work, which can be facilitated, for example, by strengthening women's leadership and participation in the energy industry. Some degree of mentoring in developing business management skills might also be needed to help women expand their enterprises or start new ones<sup>15</sup>.

Additionally, it is important to work to improve women's access to microcredit and loans to help them make the transition from micro-scale, informal operations to larger businesses that are recognized within the formal sector. With accessible financing opportunities, it is easier for women to get involved in new energy-related businesses, for example by producing and marketing more efficient stoves; selling and installing solar-home products; managing village-level power systems (including micro hydropower generators, wind turbines, and multifunctional platforms); constructing and marketing biogas digesters; or producing biodiesel fuels from locally grown crops.<sup>16</sup>

### **Energy efficiency**

In energy efficiency projects, it is important to ensure that gender relations do not become invisible under assumptions of neutrality. Women and men have different roles, perceptions and opportunities in contributing to and benefitting from energy-efficient industrial technologies that needs to be taken into consideration.

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<sup>15</sup> Karlsson, Gail and Ana Rojas. "The Benefits of Gender Balance in Climate Change Mitigation Investments and Sustainable Energy Initiatives". Available at [http://www.gender-climate.org/Content/Docs/Publications/ENERGIA\\_GenderBalance\\_ClimateChangeMitigationInvestments.pdf](http://www.gender-climate.org/Content/Docs/Publications/ENERGIA_GenderBalance_ClimateChangeMitigationInvestments.pdf)

<sup>16</sup> Ibid.

### **Example: Solar Sister - a women powered clean energy revolution**

The Solar Sisters initiative in sub-Saharan Africa is an innovative social enterprise with the mission to achieve sustainable, scalable impact at the nexus of women's empowerment, energy poverty and climate change. It combines the breakthrough potential of portable solar technology with a women driven direct sales network to bring light and economic opportunity to a range of communities without reliable electricity access.

The initiative provides women entrepreneurs with training and a start-up kit to equip them to operate, maintain and sell solar technology, such as solar lamps, in their communities. Evaluations reveal multiple benefits of the initiative: The solar business allows the entrepreneurs to double their household income; the income generated by the entrepreneurs is reinvested 90% back into their families, thus providing benefits for the next generation; and the women who buy the solar lamps can reduce household expenses by 30% when the solar energy replaces expensive kerosene.

See: [solarsister.org](http://solarsister.org); and [http://unfccc.int/secretariat/momentum\\_for\\_change/items/7072.php](http://unfccc.int/secretariat/momentum_for_change/items/7072.php)

In most developing countries, the provision of energy for the household (e.g., for

### **Example: Energy-efficient cook stoves empowering women in Burkina Faso**

In Burkina Faso, a UNIDO project currently working with the traditional beer-brewing sector predominantly led by women, is installing over 1000 energy-efficient cook stoves. Additionally, the programme will establish a credit line to enable women to purchase the energy-efficient cook stoves. The financing will be provided by a regional African bank and implemented by a local financial institution.

UNIDO's intervention in Burkina Faso also focuses on developing four clusters of women beer brewers to generate collective gains and facilitate their integration into the local value chain. In addition to increased productivity and energy efficiency, the project is expected to improve the health and environmental conditions for over 1,600 women.

See: [www.thegef.org/gef/content/promoting-energy-efficiency-technologies-beer-brewing-sector](http://www.thegef.org/gef/content/promoting-energy-efficiency-technologies-beer-brewing-sector)

cooking, heating or lighting) is usually a woman's job, and women often resort to the energy-inefficient and toxic open burning of biomass such as wood, charcoal, or agricultural waste. Even when households are connected to an electricity network, evaluations show that the power available is usually used only for smaller electrical gadgets and for lighting, and not as a substitute for biomass, particularly not in rural areas. The use of efficient energy systems at the household level (e.g., special cooking stoves and ovens) can therefore reduce emissions while at the same time reducing women's time spent on collecting biomass and improving women's health by reducing indoor air pollution<sup>17</sup>.

Moreover, in many countries both rural and urban women are engaged in highly fuel-intensive small and medium scale enterprises and home industries such as food processing, baking, brewing beer, and making soap and Shea butter products. More efficient types of fuels and equipment would allow women to increase the profitability and productivity of these activities and move into other types of business enterprises, while simultaneously reducing emissions of greenhouse gases and other air pollutants<sup>18</sup>.

Thus improving the efficiency with which women use energy and facilitating the adoption by women of energy-efficient technologies is critical to enhancing women's economic empowerment as well as to achieving sustainable industrial

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<sup>17</sup> Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ). "Climate change and gender: economic empowerment of women through climate mitigation and adaptation?". Working paper, 2010. Available at:

[http://www.climatehealthconnect.org/sites/climatehealthconnect.org/files/resources/17353\\_diskussionspapierenlayoutgc12941558.pdf](http://www.climatehealthconnect.org/sites/climatehealthconnect.org/files/resources/17353_diskussionspapierenlayoutgc12941558.pdf)

<sup>18</sup> Karlsson, Gail and Ana Rojas. "The Benefits of Gender Balance in Climate Change Mitigation Investments and Sustainable Energy Initiatives".

development and loosen the link between economic growth and environmental degradation. However, since energy technology by definition is a highly technical field dominated by engineers, energy planners etc., who are predominately male, women's knowledge tends to be disregarded in the development of energy-efficient technologies and solutions<sup>19</sup>. This can result in the design of technologies that do not meet women's specific needs and preferences, and therefore, are ultimately not adopted by women. Moreover, since the adoption of energy efficient technologies involves the acquisition of increasingly sophisticated technological capabilities, lack of necessary skills or access to financing can be a further barrier for women.

For energy efficiency projects, therefore, it is important to take into account women's and men's differentiated knowledge of, access to and use of energy-efficient industrial technologies; as well as their attitudes towards the risks and benefits connected to adopting new energy efficient technologies (for example in terms of time and work burdens, space heating, child safety, etc.) It is important to involve women in all stages of the design process and to work to improve their skills to enable them to contribute to innovation and technology development. Participatory project design and implementation with linkages between the designer institutions and field practitioners, as well as training of women trainers that take the lead in energy efficiency measures and sensitization campaigns, should be considered.

In order to advance women's equal participation with men as decision makers in shaping the sustainable development of their societies and to reduce gender inequalities in access to and control over

resources and benefits of development, it is therefore critical to consider gender differences throughout all stages of the energy project cycle and in all energy project.

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<sup>19</sup> NREL, *"The Role of Women in Sustainable Energy Development"*, 2000.

## 4. GENDER MAINSTREAMING THE PROJECT CYCLE

Gender mainstreaming goes beyond simply having a women's component in the specific project or programme. Good gender mainstreaming in practice involves all stakeholders and partners, both women and men, to collectively tackle the issue at hand. This approach recognizes the need to use participatory methodologies (i.e. including both women and men) in order to address gender inequality and promote the advancement of women. Gender mainstreaming is a process that should be embedded throughout all stages of a project cycle.

Gender mainstreaming the project cycle is to ensure the intervention:

- advances women's equal participation as decision makers in shaping the sustainable development of their societies
- reduces gender inequalities in access to and control over the resources and benefits of development

These objectives are based on the principles that women and men have different needs, roles, interests and access to resources and their benefits, and that women and men have to play equally important roles in achieving sustainable development.

The following sections are designed to provide guidelines to mainstream gender throughout the project cycle for the specific interventions provided by the Energy and Climate Change Branch.

As a starting point, Figure 1 provides an overview of key activities to consider during the gender mainstreaming process in the formulation, implementation, and evaluation of a project.

**FIGURE 1: GENDER MAINSTREAMING THE PROJECT CYCLE**

Stage	Formulation	Implementation	Evaluation
<b>Objective</b>	To understand the situation of women and men in a given context and ensure project design addresses the practical and strategic needs and priorities of women and men	To ensure proposed gender activities are implemented and any adjustments made consider a gender perspective	To assess whether or not the project has (or aspects of the project have) contributed to the achievement of gender equality and the empowerment of women
<b>Key Activities</b>	<ul style="list-style-type: none"> <li>• Assess the gender relevance of the project</li> <li>• Analyse the gender context of the project and identify the differentiated needs and roles of women and men with respect to the energy and/or climate change interventions of the project</li> <li>• Identify and consult women’s groups, associations or stakeholders concerned with gender and energy/climate change issues on project design</li> <li>• Consider lessons learned from previous projects with gender dimensions</li> <li>• Differentiate between female and male beneficiaries and explain how each will benefit</li> <li>• Develop a gender mainstreamed log frame with key project components – objective, outcomes, outputs – that promote gender equality and women’s empowerment and include gender specific targets and/or sex disaggregated indicators that measure performance and impact</li> <li>• Create ToRs for project management and implementing staff that ensure equal opportunity for women and men, and where applicable, require skills/expertise in gender</li> <li>• Allocate sufficient financial resources for gender equality and women’s empowerment activities in the energy/climate change focused interventions of the project</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure adequate resources – human and financial – are in place for gender equality and empowerment activities to take place</li> <li>• Ensure management arrangements (e.g. composition of project management team, implementing partners, steering committee) promote gender balance</li> <li>• Recruit gender specialist/expert or ensure at least one member of project management team is gender sensitized</li> <li>• Engage with gender focal points in-country (e.g. women’s groups, associations, NGOs) as project counterparts and/or as gender advisors</li> <li>• If the project is considered gender relevant, conduct a more comprehensive Gender Analysis in the field and establish a baseline</li> <li>• Collect sex disaggregated data to measure performance and impact of energy and/or climate change outputs of the project from a gender equality and empowerment lens</li> <li>• Monitor benefits, participation, and feedback among women and men and incorporate remedial action that promotes gender equality as appropriate</li> <li>• Regularly report on how gender is mainstreamed and ensure mid-term reviews, assessments, audits, etc. include gender specific components</li> <li>• Build capacity within the project and among stakeholders to ensure that gender equality initiatives in relation to energy/climate change are maintained after the project ends</li> </ul>	<ul style="list-style-type: none"> <li>• Recruit gender evaluation specialist/expert to be part of evaluation team or ensure at least one member of the evaluation team is gender sensitized</li> <li>• Integrate gender specific evaluation questions and components in the ToRs of evaluation in line with UNIDO Evaluation Group Guide for integrating gender.</li> <li>• Identify good practices and lessons learnt on project outcome/outputs or activities that promote gender equality and/or women’s empowerment</li> <li>• Ensure evaluation report assesses gender mainstreaming results and impacts using both qualitative and quantitative data disaggregated by sex</li> </ul>

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|--|---|--|--|
|  | <ul style="list-style-type: none"><li>• Take into account any adverse impacts or risks, differentiated by sex, that may impede project implementation</li></ul> |  |  |
|--|---|--|--|

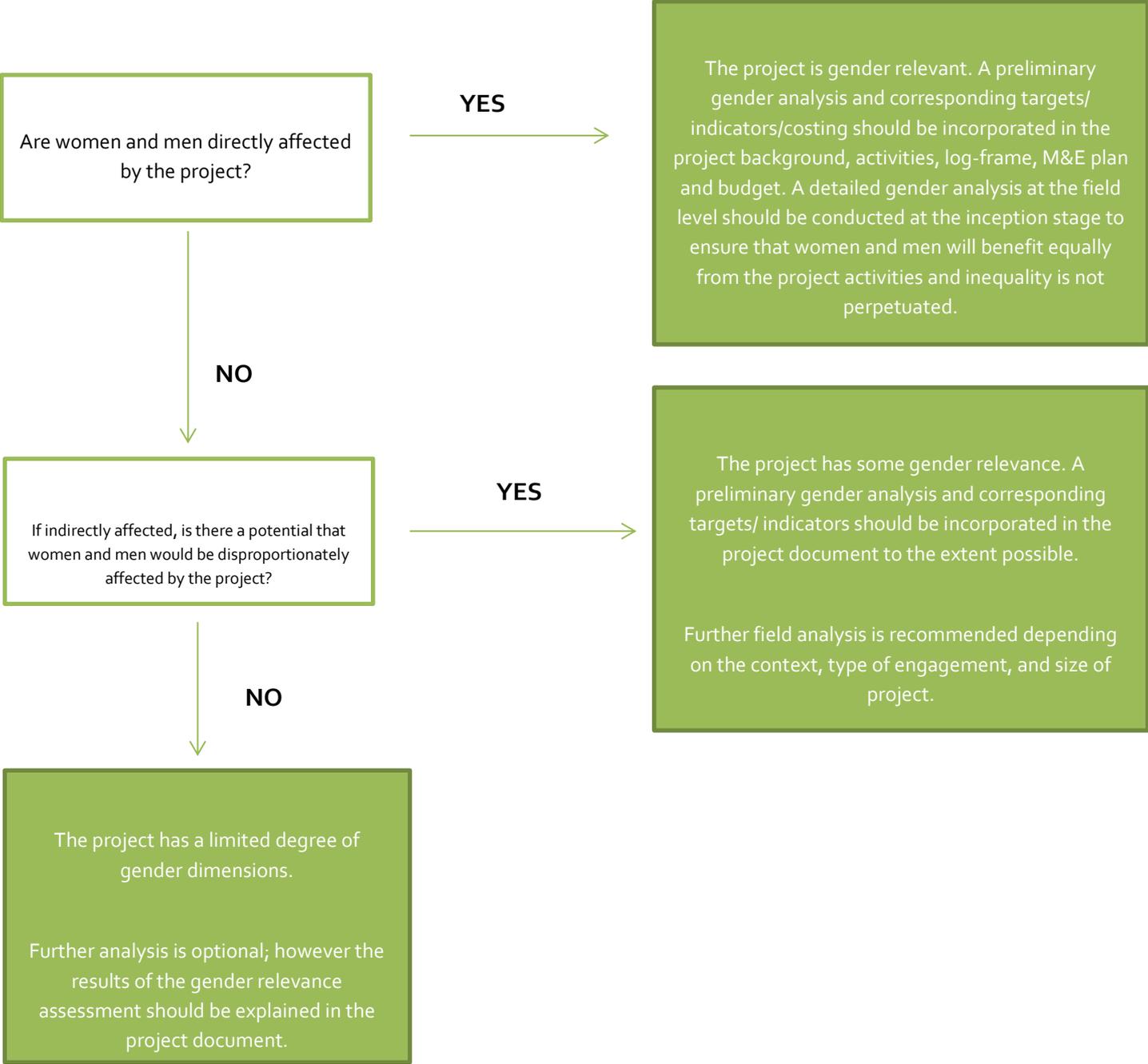
### **3. GENDER MAINSTREAMING DURING PROJECT FORMULATION**

Energy projects take place in specific social and economic contexts where the division of labour, decision-making power, access to education, and other differentials between men and women are embedded. A gender analysis is essential to better understand the situation of women and men and their relations in a given context. The gender analysis will help determine the most effective strategies in a particular context that will support gender equality and the empowerment of women.

#### **Gender relevance assessment**

Depending on the type of intervention and scope of activities, the degree of relevance of gender dimensions may vary. Figure 2 provides a simple assessment on the gender relevance of a project. This diagram can also be found in Annex 1: Gender analysis tool. Once it has been assessed that gender plays a role in the planned intervention, a gender perspective should be integrated in all phases of the project cycle.

**Figure 2: GENDER RELEVANCE ASSESSMENT**



## Gender analysis

A gender analysis examines the different roles, rights, needs, and opportunities of women and men, boys and girls and the relations between them in a given context. It is a practical tool that is used to inform policies and programmes as well as identify opportunities and entry points for promoting gender equality and women's economic empowerment in technical projects.

Once the gender relevance has been assessed and it has been determined that gender plays a role in the intervention, a gender analysis should be undertaken.

Ideally, a gender analysis would be undertaken by a gender expert who is knowledgeable about the regional and contextual background of the intervention. For examples on the specific tasks to be undertaken or qualifications for gender experts, please refer to Annex 2 and 3: Terms of reference for gender expert for project design and project implementation.

If, however, resources are limited, a gender analysis can also be undertaken by project management with the appropriate tools and guidance. One specific tool that provides an overview of key elements to consider in a gender analysis is the Gender analysis tool provided in Annex 1. Complementary to the Gender analysis tool, the following sections will provide more in-depth guidance on the collection and analysis of information as well as general considerations for your gender analysis.

## Collection of relevant information

Sex disaggregated information (qualitative and quantitative data) may be collected on:

- The likely impact of your energy programme or project interventions, for

instance, at the level of outputs on men and women;

- The participation of women and men in the labour market of the area considered, including division of labour (e.g. skilled vs. unskilled) and its value (e.g. remunerations, benefits associated), while statistical data will only provide the country level situation, this information can then be compared with division of labour that the project identifies and the remuneration, benefits, etc. within the intervention itself;
- The different perspectives, roles, needs, priorities and interests of women and men at local level, i.e. the actual project locations and within the project context;
- The different levels of access to and control over resources, benefits and decision making processes in the country and later within the project context;
- The social and cultural constraints, as well as opportunities (policy and legal framework) and entry points for reducing gender inequalities, including in project locations during inception and/or implementation stages;
- Counterparts, partners and institution's capacity on gender responsiveness;
- The access to and control of assets such as:
  - financial (sources of income, savings, loans, etc.);
  - natural (soil, water forest, etc.);
  - physical (house, land, workshop buildings, school, clinics, etc.);
  - human (health, skills, education, knowledge, etc.);
  - social (family links, support groups, social acceptance, etc.);
  - productive (technology, land, value-adding inputs);
  - political (political participation);
  - training and information.

Potential sources of information useful for a gender analysis that are commonly available

without dedicated data gathering include: energy access and end-use data, energy policy, legal and regulatory frameworks and budgets, policies and laws outside the energy sector but impacting energy sector activities (e.g. in the areas of industry, labour, etc.), and household survey information for poverty assessments, social assessments in other sectors, and household energy surveys related to other energy sector projects.

Tools for information collection can include a literature review, focus groups, surveys, consultations, and community and social mapping. New gender analytical studies could be conducted or commissioned to address information gaps or to update existing information. In many countries key gender issues, major energy issues and critical development issues have already been identified separately in national reports and workshops.

### Analysis of information

Collected data is analysed primarily to identify the potential of the project to affect the condition and opportunities of women and men in general as well as those at a disadvantage in particular. Key aspects to be considered are decision-making power, access to resources, knowledge, linkages to the market, risks on health or worsening of heavy workloads, among others.

Analysis of data from a gender perspective will also help to determine:

- Can men and women be addressed by the project in the same way without the risk of worsening existing gender gaps?
- What are the risks and consequences of mainstreaming gender (or not) in the project?

- Which project activities may be considered “gender neutral” and which ones require specific action?
- Which aspects (e.g. access to training, mobility, workload, others) must be taken into account to establish project goals, indicators and activities that will promote gender equality?
- What supporting tools, expertise and/or alliances are necessary to meet gender equality goals in the project?

### Gender analysis at macro level

A gender analysis should start at the macro level addressing the national contexts that frame the energy project’s area of intervention.

At the national level, the context analysis has many dimensions: social, economic, political, cultural and environmental. This analysis will determine the conditions, limitations and opportunities to implement the energy project while being aware of gender inequalities in place.

The following provide some key questions for context analysis at national level.

#### Gender analysis at country level:

##### Guiding questions

##### Policy framework analysis

- What are the legally binding international and regional human rights instruments, commitments, polices that have been signed by the country (e.g. CEDAW; as quick a resource refer to the universal human rights index: [www.universalhumanrightsindex.org](http://www.universalhumanrightsindex.org))
- Are there any government programmes that address gender inequalities relevant to the project?
- Are there any relevant gender indicators that are regularly monitored at national level, e.g. by the National Bureau of Statistics or by Agency responsible for reporting on National Development Plans?

##### Political and empowerment framework

### analysis

- What is the percentage of seats that women and men have in parliament and in decision-making ministerial and regional posts, and particularly in the Ministry/Agency responsible for your project?
- What is the percentage of men/women in high-paying positions in the project sector?
- What is the percentage of women in professional, technical, managerial and administrative jobs in the country?
- Are there relevant civil society organizations or international agencies that work in the sector of intervention with a gender equality or women's empowerment perspective?

### Labour market framework analysis

- What is the labour division between women and men in the country?
- What is the percentage of women in professional, technical, managerial and administrative jobs in the country?
- Are there gender gaps in income for equal work amongst women and men in the country?

### Economic and financial framework analysis

- What is the percentage of women in relation to men who have access to land tenure and credit in the country?
- What is the availability of outreach programmes to women that target the provision of business development and/or financial services through government initiatives, private lenders, and others, in general and relevant to the sectors/localities of the project?

### Social and cultural framework analysis

- What are the social or cultural values, norms, attitudes and beliefs in relation to gender equality?
- Are there gaps in literacy levels between women and men (rural/urban)?
- What are the enrolment rates for primary, secondary and tertiary education?
- Are there gender gaps in access to health?
- What is the level of gender based violence in the country?

### Energy framework analysis

- What are the key country level energy

related gender issues that the project must be aware of, and could possibly deal with?

- Are there policies on energy management related to the intervention? Are these policies gender mainstreamed?

The data published by the UN is a good source of information for specific gender indicators at national level. They include the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM), which were introduced in 1995 in the Human Development Report written by the United Nations Development Program (UNDP)<sup>20</sup>. Other useful data include the Gender Inequality Index (GII), Women's Economic Opportunity Index (WEOI), and the Global Gender Gap Index (GGI). There is also gender information at country level in a database that collects human rights data at [www.universalhumanrightsindex.org](http://www.universalhumanrightsindex.org).

Gender violence related information at the country level may also be available on this website.

Additionally, in many countries, indicators are being nationalized and data is collected in relation to their national needs by National Bureaus of Statistics and Ministries for Labour and/or Social Affairs.

The macro context review will equip you with useful arguments to successfully discuss gender mainstreaming of your projects with counterparts and stakeholders.

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<sup>20</sup>The GDI identifies gender-gaps in life expectancy, education, and incomes. The GEM is based on estimates of women's relative [economic income](#), participations in high-paying positions with economic power, and access to professional and parliamentary positions. It is indicative of the relative [empowerment](#) of women in a given country.

### Gender analysis at meso level

It is crucial to have a good understanding of the differences between men and women to not only help understand and prioritize gender issues, but also effectively identify the sector for intervention that will make the most sustainable impact.

There are considerable differences in availability of information by sector in relation to gender. Fields such as governance, environment and rural development may offer more information than sectors such as industry, transport, and infrastructure.

Often, dispersed information is available in decentralized offices, municipal or district plans, and even in documents produced by the private sector. When written information is not available, interviews with key informants, meetings and even workshops may be employed to gather information.

The following provide some key questions for context analysis at sector level.

<b>Gender analysis at sector level: Guiding questions</b>
<b>General framework analysis</b>
<ul style="list-style-type: none"> <li>• Are there sector policies supporting or causing gender inequalities?</li> <li>• Is there a gender focal point in the counterpart ministry?</li> <li>• What is the most common division of labour in the industry by gender? Are there wage gaps between women and men working in the sector of the project?</li> <li>• How many SMEs are owned or managed by women in the sector?</li> <li>• What are the barriers/challenges that reinforce gender inequalities? How might this affect different groups' ability to participate in energy project interventions?</li> <li>• Are there any similar energy projects</li> </ul>

<p>currently being implemented addressing gender issues?</p> <ul style="list-style-type: none"> <li>• Will women's workload increase/decrease as a result of innovation and changes in technology? If their workload is decreased, will this involve loss of income?</li> </ul>
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### Integration of findings

The results of the gender analysis should be integrated into the project in a relevant and meaningful way. The following sections provide suggestions on how to mainstream gender into and throughout your project.

Moreover, please refer to Annex 1: Gender analysis tool for a universal checklist on how to integrate gender dimensions into project design.

### Mapping of potential partners and stakeholders

One key way to integrate a gender perspective into your project is during stakeholder mapping.

Among the key stakeholders that could be involved throughout the process are gender focal points of the relevant national ministries (e.g. industry, labour, trade), industry associations, labour organizations, laboratories, universities, NGOs, civil society organizations, etc.

Additionally, if a strong gender imbalance exists among the project stakeholders you may need to take measures to involve more of the underrepresented gender—be it men or women—and contribute to raise awareness among them. This is a question of accountability and credibility.

Some key questions to consider when mapping potential partners and stakeholders include:

- Do key stakeholders include individuals or groups with a gender perspective (e.g. ministry of women, social affairs or a committee, membership organization)?
- Is there a balanced gender representation among key stakeholders?
- Is there at least one stakeholder who has the necessary skills and expertise to provide gender mainstreaming inputs?
- Are stakeholders willing to seek women's participation during the implementation?

### **Incorporate gender dimensions in project formulation**

To further identify entry points to integrate gender dimensions into your project, the following are gender considerations and questions that can assist you in the formulation of key components of your project –(e.g. specific outcomes, outputs, activities, indicators).

In general, consider the following:

- How will women and men be targeted and reached?
- Are there any women's groups, associations, NGOs in country that the project can partner with?
- Is the project responding to gender differentiated patterns of division of labour, wage gaps, etc.?
- How will the activities and services of the project benefit women and men?
- Is the project likely to have adverse effects on women or men?
- How will the project affect relations between women and men?
- How will the project ensure women and men have equal access to the opportunities and services that the energy project provides?
- How can the project ensure and enhance women's participation in the activities or services provided by the project?

### **Questions specific to Energy Access**

- Does the project address energy service needs of both women and men?
- Does the project consider women's time burdens due to childcare, long distances, and domestic responsibilities, social and cultural norms, etc., which might affect their ability to attend training sessions on energy services?
- Does the project provide power to key "social" infrastructure (e.g., water distribution, public lighting, training & health centres)?
- Is there room for the project to relieve women's and men's workloads in their specific productive/processing roles through energy facilitated technologies?
- How could the project address the fact that female-headed households might not be able to pay for initial connections costs and the purchase of appliances that can be used for income generation?
- Is there room for the project to address women's barriers to credit and provide financing mechanisms for adoption of energy technologies and fuels?
- Does the project assess market outreach and financial services for gender balance and potential banking alternatives (mobile banking, women's funds/group lending)?
- How can women's awareness of rights, entitlements, and opportunities be raised?
- How can women's leadership and participation in energy decision making be promoted?
- In off-grid locations, are women included in training in maintenance and development of energy services?
- In large-scale energy infrastructure projects, does the project address the fact that displacement, resettlement, livelihood loss, and job creation triggered by the project can be unequal between men and women?
- Does the project train women in jobs related to construction and operation to improve local income generation related to large-scale energy infrastructure?
- Is the project design considering women as a

homogeneous group or it is taking into account also economic-ethnic-cultural differentiations in order to favour those who need it most?

### Questions specific to Renewable Energy

- How can the project facilitate the establishment of women's sustainable local enterprises (e.g., biogas production, PV distribution enterprises, others)?
- What objectives and activities are considering women's disadvantages, if any, in education; access to credit; land tenure; lack of experience in energy businesses; difficulties in connecting to the markets, etc.?
- Is the project contributing to the education, training and professional development for women?
- How could the project address the fact that women traditionally have less access to information about new forms of energy?
- How could the project address intra-household power relations that might prevent women from benefitting from or purchasing the energy services provided?
- Does the project design ensure that information and training on renewable energy technologies is targeted at both women and men?
- Is there room for women and men for functional upgrading of their traditional roles, for example in export, marketing, new forms of organization in cooperatives or self-help groups?
- In which activities can women's leadership be promoted in renewable energy and how?
- Is there any risk of women or men refraining themselves from utilizing available renewable energy sources for productive uses?
- Does the project design include women's empowerment indicators (e.g. increased income for women from renewable energy enterprise)?
- Which activities are addressing non-traditional roles of women such as marketing and promotion of women in STEM (science, technology, engineering, mathematics) fields of education?

### Questions specific to Energy Efficiency

- How can the project ensure that women are involved in the technology design process?
- Have both women and men's views about

technology options and design features been taken into account?

- Does the project include women in household level training for energy efficiency? Does the project also include women owned or managed SMEs for energy efficiency interventions, if not, why?
- How can the project address the fact that lack of awareness can prevent women and men from adopting new energy saving technology and efficiency options?
- To what extent does the project address the fact that women and men have different access to finance for improved technology options?
- Does the project consider women and men's different roles in decision making; from purchasing power to end user adoption?
- Is there room for promoting consumer energy efficiency awareness by, for example, mobilizing women's groups and social compacts?
- Does the project promote engagement of utilities with communities, including specifically women, in demand-side management programs?
- Is the project design making clear its commitment to contribute to gender equality (e.g. in the objectives, specific outputs and indicators)?

### Monitoring and evaluation plan

Central to a gender responsive monitoring and evaluation plan is the identification and inclusion of women specific targets and sex disaggregated performance indicators.

Women specific targets and gender responsive indicators are useful tools to track progress and impact of the gender results over time of a particular intervention.

It is important to note that gender responsive indicators should not be superficial, but rather add value and give information about the underlying questions of the project; that is, whether conditions for women and men are really changing in terms of economic or political power, social status, energy and food security, etc. Therefore, it is good practice to review all indicators of the project (from development

objective to output/activity levels) and to identify whether each indicator lends itself to sex-disaggregation. Reviewing what the indicator aims to measure both for women and men is also useful.

Gender responsive indicators should identify whether the situation has changed and how or whether the project has contributed to gender equality or perpetuated or even increased existing inequalities.

Such indicators can be formulated to be quantitative (e.g. monitoring sex disaggregated data on level of poverty or participation) or qualitative (e.g. monitoring changes in attitude, perception, levels of empowerment).

The following matrix provides suggested indicators for specific interventions undertaken by the Energy and Climate Change Branch.

## ECC Indicator framework for monitoring gender-related impacts

Type of Intervention	ECC Outputs and Activities	Possible GEEW Outputs	Possible GEEW Indicators	Indicative GEEW Outcomes
Policy Formulation	<ul style="list-style-type: none"> <li>Supporting development of sustainable energy policies and regulatory frameworks for industry</li> </ul>	<ul style="list-style-type: none"> <li>Women associations and networks are included in policy consultations</li> <li>Impact assessments of possible gender differentiated outcomes of policy options are undertaken</li> <li>Policy makers receive appropriate training on gender implications of sustainable energy policies and regulatory frameworks</li> <li>Sex-disaggregated and gender relevant data is collected (e.g. data related to the access to and control over resources, energy use patterns, division of labour in energy sector, and impacts of energy development).</li> </ul>	<ul style="list-style-type: none"> <li>% of policy decisions in which women associations have been consulted</li> <li># of impact assessments</li> <li># of gender specific recommendations for mitigating impact of policy decisions on women</li> <li># of gender specific targets or included in policy</li> </ul>	<ul style="list-style-type: none"> <li>Women's participation and leadership in energy governance is promoted</li> <li>Policies recognize women as independent users of energy services and enable them to benefit from access to modern energy technologies</li> <li>Women have improved access to sustainable energy for productive uses</li> <li>Enabling environment is created that supports women to benefit from modern energy services and technologies including RETs and EE measures</li> </ul>
Awareness Raising & Capacity Building	<ul style="list-style-type: none"> <li>Awareness raising of RE and EE potentials and benefits</li> <li>Support in development and provision of professionally recognized engineering programmes and vocational higher-education institutions</li> </ul>	<ul style="list-style-type: none"> <li>All stakeholders are gender sensitized and aware of the benefits (esp. economic benefits) of gender mainstreaming</li> <li>Women's associations and networks are included in awareness raising workshops</li> <li>A national campaign promotes and favours enrolment of girls and young women in STEM fields</li> <li>An education initiative (e.g. fellowship/scholarships) supports girls and young women who pursue higher education in STEM fields</li> <li>Partnerships with energy institutions to</li> </ul>	<ul style="list-style-type: none"> <li>% of women-owned business newly engaged in RE and EE</li> <li>% of girls who enrol in engineering or related programs in sustainable energy</li> <li>% of women participants at workshops</li> <li>% of girls and young women enrolled in STEM educational programmes</li> <li>% of women professionals, engineers, technicians for targeted sectors</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable energy interventions achieve more impact as more women are contributing to and benefitting from implemented activities and outputs</li> <li>Women's leadership in energy institutions is more prominent</li> <li>Women have more technical expertise and experience on sustainable energy issues</li> </ul>

		<p>establish management-level career tracks for girls and young women</p> <ul style="list-style-type: none"> <li>• Mentorship-networks and programmes are created for girls and young women working in sustainable energy</li> </ul>		
	<ul style="list-style-type: none"> <li>• Development of training materials and conduct trainings <ul style="list-style-type: none"> <li>→ RE: RETs, RE standards, sustainability measure for biofuels, environmental impacts of RETs etc.</li> <li>→ EE: Energy systems optimization, ISO 50001 (lead auditor programmes), EnMS</li> <li>→ Financing mechanisms &amp; risk mitigation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Training opportunities are available for women with specific incentives and facilities</li> <li>• Training materials are developed to sensitize trainers and trainees on gender dimensions of respective RE/EE measures</li> <li>• All stakeholders are trained on the associated gender implications and opportunities of sustainable energy</li> </ul>	<ul style="list-style-type: none"> <li>• % of women participants at trainings</li> <li>• % of women professionals, engineers, technicians for targeted sectors</li> <li>• % of technical interventions with high GEEW impact potential (&gt;75% of women)</li> </ul>	<ul style="list-style-type: none"> <li>• Women engage and lead discussions on sustainable energy solutions</li> <li>• Sustainable energy interventions achieve more impact as more women are integrated into the implementation</li> </ul>
Technology Demonstration & Transfer	<ul style="list-style-type: none"> <li>• Demonstration of RE/EE potentials <ul style="list-style-type: none"> <li>→ Construction and operation of pilot facilities employing renewable energy technology</li> <li>→ Implementation of EE measures</li> </ul> </li> <li>• Facilitation of technology transfer, including south-south cooperation <ul style="list-style-type: none"> <li>→ Localization of EE/RE technologies and introduction to the local market</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Impact assessments of possible gender outcomes of RE/EE potentials are undertaken</li> <li>• Dialogues are facilitated among key stakeholders from government, civil society, private sector and community leaders to discuss gender implications of the demonstration/technology transfer</li> <li>• Operational plan of pilot facilities and management systems includes compulsory gender training and specific conditions for technical training opportunities for women</li> </ul>	<ul style="list-style-type: none"> <li>• # of impact assessments</li> <li>• # gender relevant dialogues facilitated</li> <li>• % of women trained on new technologies</li> <li>• % of women working in pilot facilities</li> <li>• # of new/improved technologies for women in sustainable energy</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable energy interventions achieve more impact as more women are contributing to and benefitting from implemented activities and outputs</li> <li>• Women lead sustainable development solutions in local communities</li> <li>• Enabling environment is created that supports women to benefit from modern energy services and technologies including RETs and EE measures</li> <li>• Women's drudgery decreased in the work-place through RE/EE technology improvements</li> </ul>
Investment Promotion	<ul style="list-style-type: none"> <li>• Support development of sustainable energy technologies including RETs and EE measures (innovation, R&amp;D)</li> </ul>	<ul style="list-style-type: none"> <li>• Sex-disaggregated and gender relevant data is collected on benefits and impacts of innovations/developments of energy technologies (e.g. assess how women's and men's time and labour burdens are impacted by innovations/developments)</li> </ul>	<ul style="list-style-type: none"> <li>• # of gender specific recommendations concluded from research</li> </ul>	<ul style="list-style-type: none"> <li>• Women's drudgery decreased in the work-place through RE/EE technology improvements</li> </ul>

&  Entrepreneurship Development	<ul style="list-style-type: none"> <li>• Training on business skills           <ul style="list-style-type: none"> <li>→ Financial analysis of new business models employing RE/EE measures</li> <li>→ Mentoring of start-up entrepreneurs and SMEs including through business clinics</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Training opportunities are available for women with specific incentives and facilities</li> <li>• Clear and functional technical guidelines are developed to facilitate gender mainstreaming in their business models</li> <li>• RE/EE needs of women explicitly considered in investment –promotion and entrepreneurship development</li> <li>• Networks and mentorship programmes for women owned start-up entrepreneurs and SMEs are established, including linkages to international fora</li> </ul>	<ul style="list-style-type: none"> <li>• # of new enterprises owned and/or managed by women using sustainable energy</li> <li>• # of additional jobs for women in sustainable energy</li> <li>• \$ income increase for women in targeted industries</li> <li>• # of new/improved technologies for women in sustainable energy</li> </ul>	<ul style="list-style-type: none"> <li>• Women are empowered to become energy entrepreneurs</li> <li>• Women's drudgery decreased in the work-place through RE/EE business-start ups</li> <li>• Women are empowered to engage in income generating activities</li> <li>• Women participate in green industry jobs</li> </ul>
	<ul style="list-style-type: none"> <li>• Support in the development of bankable RE/EE project proposals and business models           <ul style="list-style-type: none"> <li>→ Resource assessment of renewable energy potentials and identification of appropriate technologies</li> <li>→ Development of portfolio of potential projects and sites, and match making with potential investors</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Resource assessment should include a gender dimension where possible (e.g. assessment of access to and control of RE potentials)</li> <li>• Partnerships with potential investors to support projects with high GEEW impact potential (&gt;75% of women)</li> </ul>	<ul style="list-style-type: none"> <li>• # of gender specific recommendations included in assessments</li> <li>• # of new enterprises owned and/or managed by women using sustainable energy</li> <li>• # of additional jobs for women in sustainable energy</li> <li>• \$ income increase for women in targeted industries</li> <li>• # of new/improved technologies for women in sustainable energy</li> <li>• # of new ventures with high GEEW impact potential created</li> </ul>	<ul style="list-style-type: none"> <li>• Women are empowered to become energy entrepreneurs</li> <li>• Women's drudgery decreased in the work-place through RE/EE business-start ups</li> <li>• Women are empowered to engage in income generating activities</li> <li>• Women participate in green industry jobs</li> </ul>
	<ul style="list-style-type: none"> <li>• Business network established among RE/EE service providers, and among target industries</li> </ul>	<ul style="list-style-type: none"> <li>• Women specific networks are established, including linkages to international fora</li> </ul>	<ul style="list-style-type: none"> <li>• # of new networks with high GEEW impact potential established</li> <li>• # of women speakers at national and international industry events</li> </ul>	<ul style="list-style-type: none"> <li>• Women engage and lead discussions on sustainable energy solutions</li> <li>• Sustainable energy interventions achieve more impact as more women are contributing to and benefitting from implemented activities and outputs</li> <li>• Women have more technical expertise and experience on</li> </ul>

				sustainable energy issues
Global Forum	<ul style="list-style-type: none"> <li>• Organization of conferences / EGMs to raise awareness, promote partnerships and disseminate information</li> </ul>	<ul style="list-style-type: none"> <li>• All stakeholders are gender sensitized and aware of the benefits of gender mainstreaming</li> <li>• Women’s associations and networks participate in conferences and EGMs</li> </ul>	<ul style="list-style-type: none"> <li>• % of women participants at the conferences and EGMs</li> <li>• % of women professionals, engineers, technicians for targeted sectors</li> <li>• % of women-owned business newly engage in RE and EE</li> <li>• % of girls who enroll in engineering or related programs in sustainable energy</li> </ul>	<ul style="list-style-type: none"> <li>• Visibility of women’s needs and priorities as related to sustainable energy is increased</li> <li>• Women engage and lead discussions on sustainable energy solutions</li> <li>• Sustainable energy interventions achieve more impact as more women are contributing to and benefitting from implemented activities and outputs</li> </ul>
	<ul style="list-style-type: none"> <li>• Network of partner institutions and regional economic communities, including assistance in the establishment and operation of regional sustainable energy centers (e.g. ECREEE)</li> </ul>	<ul style="list-style-type: none"> <li>• A national/regional strategy is developed on achievement of GEEW goals</li> <li>• A steering committee is established whose specific focus is to gender mainstream the establishment and operation of regional sustainable energy centers</li> </ul>	<ul style="list-style-type: none"> <li>• # of GEEW goals integrated in overall implementation of sustainable energy centers</li> <li>• Regional sustainable energy centers employ a gender responsive approach to management and operations</li> </ul>	<ul style="list-style-type: none"> <li>• Sustainable energy interventions achieve more impact as more women are contributing to and benefitting from implemented activities and outputs</li> </ul>
	<ul style="list-style-type: none"> <li>• Publications of lessons learned, best practices, research findings and knowledge management initiatives including online platforms are developed</li> </ul>	<ul style="list-style-type: none"> <li>• All stakeholders are gender sensitized and aware of the benefits of gender mainstreaming</li> <li>• Publications are developed focusing on gender dimensions of sustainable energy (e.g. showcase best practices of women owned enterprises)</li> <li>• Online platforms are developed for women with specific incentives and facilities</li> <li>• Research and sex disaggregated data on women and men is collected (e.g. data related to the access to and control over resources, energy use patterns, division of labour in energy sector, and impacts of energy development).</li> </ul>	<ul style="list-style-type: none"> <li>• % of policy decisions in which women associations have been consulted</li> <li>• # of publications developed</li> <li>• # of online platforms developed</li> </ul>	<ul style="list-style-type: none"> <li>• Visibility of women’s needs and priorities as related to sustainable energy is increased</li> <li>• Women engage and lead discussions on sustainable energy solutions</li> <li>• Sustainable energy interventions achieve more impact as more women are contributing to and benefitting from implemented activities and outputs</li> </ul>

**Risk assessment**

Among the risk factors identified during the project design, it is important to identify those related to outputs concerned fully or partially with gender equality and women’s empowerment. A risk assessment will show how the energy project will be influenced by a variety of factors outside the control of the project manager such as socio-economic and environmental factors as well as the operation and functioning of institutions, legal systems and socio cultural practices (e.g. discriminatory attitudes, domestic responsibilities, etc.) as well as output level risks that directly relate to the project design. It is equally important to be aware of the potential consequences of empowering women or changing the existing gender balance (e.g. increase in gender based violence).

Risks are specific to the context of each project and the following questions can help to identify risks related to gender during project formulation.

<b>Risk assessment</b>
<b>Guiding questions</b>
<ul style="list-style-type: none"> <li>• <b>Is there a possibility that the project can reduce women’s access to or control of resources and benefits?</b></li> <li>• <b>Is there a possibility that the project can adversely affect the situation of women or men (e.g. potential increased burden on women or social isolation of men)?</b></li> <li>• <b>What factors may influence women’s or men’s ability to participate in the energy project’s activities (such as lack of time, missing transport, lower educational levels, discriminatory approaches etc.)? Can changing the project design eliminate these risks? What are the mitigating measures and have these been incorporated as activities into the project?</b></li> <li>• <b>What social, legal, and cultural obstacles could prevent women from participating in and benefiting from the energy project? Can changing the project design eliminate these risks? What are the mitigating measures and have these been incorporated as activities into the project?</b></li> </ul>

- **Will women’s workload increase/decrease as a result of innovation and changes in technology? If their workload is decreased, will this involve loss of income?**

**Gender-responsive budgeting**

Gender-responsive budgeting helps to ensure gender equality in outputs and programmes by incorporating a gender perspective into the regular budgetary process. It seeks to address possible differences in roles, contributions, and needs for women and men through the allocation of an adequate budget for the relevant project activities under the appropriate output. Gender-responsive budgeting will involve a gender budget analysis to identify the different impacts of expenditures on men and women and potentially the need for re-allocation of expenditure to ensure fair and equitable distribution of benefits to both sexes. Ultimately, there should be a gender-sensitive allocation of resources.

Budget and resources for a gender expert, fieldwork, workshops, gender training for staff, and possible new activities identified through gender mainstreaming and activities related to mitigating risks that may adversely impact women will need to be taken into consideration in the overall budget of the energy project and not in a separate “gender budget”. Once again, an initial gender analysis is therefore vital for determining priorities.

The proportion of your budget dedicated to gender specific activities will depend on the energy project objectives, target group, design and outcomes. The first priority should lie with integrating gender dimensions into project design. If that is done well, a specific budget for “gender activities” may not even be necessary.

## Gender-responsive budgeting

### Guiding questions

- Does the distribution of programme funds reflect the level of commitment to gender related goals?
- Are there sufficient funds to achieve the expected results that support gender equality?
- Are there sufficient funds to include women's and men's differentiated needs and consider them in all activities?

## 5. GENDER MAINSTREAMING IN PROJECT IMPLEMENTATION

In the case of an existing energy project that already has started implementation, a good starting point for gender mainstreaming would be to review the gender questions and considerations specific to the type of intervention provided by the ECC Branch (e.g. energy access, energy efficiency and renewable energy) in the "Gender Mainstreaming in Project Formulation" section to identify what entry points and opportunities to integrate gender dimensions into the project remain.

For projects that are just beginning project implementation, the selection of the implementation team and key stakeholders is an essential first step.

### Selection of an implementation team

In general, women tend to be under-represented in energy projects at all levels. When building the project management team, think about having a gender-balanced team at different staff levels. You could promote an increased gender balance by:

- Specific encouragement of women to apply for positions in job advertisements;
- Advertising positions in places where women are more likely to see the

advertisement as well as using women's networks (e.g. women's associations);

- Offering family friendly working conditions.

To ensure a gender perspective is integrated in implementation of the project, consider hiring a gender expert to be part of the project implementation team. For continuity, this could be the gender expert who conducted the gender analysis at the onset of the project. In the implementation phase, the gender expert would undertake the data collection and monitoring of the project.

If resources are limited, there are several ways to ensure that the project implementation team is gender responsive. One way would be to include gender responsiveness as criteria for selection of team members. You should also include gender responsive activities in the terms of reference (TOR) of the implementation team (e.g. undertake a gender analysis, monitor and report disaggregated figures)

It is important to note that female staff is not necessarily gender sensitive or knowledgeable about gender work, so building the whole team's knowledge may still be necessary. To this end, it would be advisable to have an orientation workshop with local staff to sensitize staff on gender issues in the context of the project as well as inform them on how specific components of the project will address those issues. During the workshop, one could carry out a preliminary assessment of staff gender perceptions, including the challenges and opportunities seen by staff to mainstream gender in the project.

In any situation, it would be advisable to think about building the capacity of the international and national industrial experts on gender mainstreaming to ensure that

gender equality activities are maintained after the conclusion of the project.

**Working with stakeholders**

It is imperative that counterparts and energy project stakeholders are made aware and informed about gender inequality issues and UNIDO’s commitment to address them. This means assessing and creating gender awareness amongst potential partners such as civil society groups, government institutions, and private sector institutions.

The following are guiding questions to briefly assess partners. These questions can also be posed in focus groups or individually, collecting information from women and men separately.

<p><b>Assessment of gender policy, attitudes and awareness among partners</b></p> <ul style="list-style-type: none"> <li>• Does the partner organization have a policy or strategy for gender equality?</li> <li>• What are the roles between women and men within the partner organization?</li> <li>• Do women and men equally participate at decision-making levels at the partner organization?</li> <li>• Are partners aware of gender inequalities among beneficiaries?</li> <li>• What are their views on such gender inequalities?</li> <li>• Which population groups are generally served by the partner organization?</li> </ul>
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**6. GENDER MAINSTREAMING IN PROJECT MONITORING AND EVALUATION**

Project monitoring and evaluation (M&E) is central to ensuring that a gender perspective is fully integrated in all phases

of the project and that gender results are collected and monitored.

A baseline, including targets and benchmarks, should be identified at the design stage in order to effectively monitor and evaluate the impact of the project on men and women. The logical framework of the project should show these baselines.

The M&E system should collect and report sex-disaggregated information on all project components where possible and relevant.

Essential to establishing and maintain a gender responsive M&E system is: a commitment at decision-making level and a shared responsibility amongst all project team members, as well as partners and beneficiaries of the project on the relevance and importance of gathering data to monitor gender results.

**Monitoring gender results**

The monitoring process can be made more gender-responsive by including a gender expert in the implementation team or by making sure that the implementing partners are gender sensitized so that data on women and men are effectively collected and monitored.

Monitoring can be the direct responsibility of project staff compensated through the UNIDO budget.

However, a more strategic approach would be to allow for the monitoring function to be the shared responsibility of partners and women and men of the beneficiary groups, in cooperation with UNIDO. This can serve to build capacity among partners and beneficiaries as well as strengthen the sustainability of the project.

Gender sensitive indicators and gender results should be regularly assessed and reported on in progress reports. Part of monitoring and evaluation includes the systematization of good practices.

### **Evaluating Gender Results**

As with monitoring, the evaluation process can be made more gender-responsive by including a gender expert as part of the evaluation team or by making sure that the evaluator's terms of reference specify the need for some gender expertise.

The explicit gender dimension of the project's goals, objectives, and outputs will be a good reference point to evaluate progress. To this end, gender specific evaluation questions should be identified and integrated into the terms of reference of the project's evaluation in line with UNIDO's Evaluation Group's guidelines on integrating gender into evaluations. Moreover, it would be beneficial to integrate an evaluation component that identifies good practices and lessons learnt from the intervention with regard to gender equality and the empowerment of women. For more detailed information please refer to Annex 4: Guide for integrating gender into evaluations of UNIDO projects and programmes.

Even if the project doesn't address explicit gender issues, it still could be evaluated against gender criteria. This is because gender awareness can be implicit in the decision making that went into project planning and implementation (e.g. "soft issues" such as gender or beneficiary participation can be subsumed in projects).

Take into account the following pointers of gender-blind and gender responsive evaluations<sup>21</sup>:

A gender-blind evaluation:

- Pays no attention to gender policy or national development plans
- Uses "neutral" indicators regardless of sector
- Does not use mix of skills in evaluation team / does not seek expert advice/ does not require specific tools to address gender concerns in reported evaluation mission reports
- Disconnects between poverty/gender or environment/gender criteria

A gender-responsive evaluation:

- Makes explicit the action(s) on gender dimensions of project goals/objectives
- Makes explicit the gender policy used in support of analysis
- Uses sex-disaggregated data and gender-sensitive indicators
- Indicates the management team's hard/soft sides
- Includes the participation of beneficiaries and specialists in evaluation
- Makes clear the mechanism for gender analysis

### **Communicating Gender Results**

Dissemination of gender results in a way that is understandable and useful for different stakeholders is one of the main challenges for gender mainstreaming. Usually, there is a general gap of

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<sup>21</sup> International Service for National Agricultural Research (ISNAR), 2001. Available at: [www.fao.org/sd/dim\\_pe1/pe1\\_040702\\_en.htm](http://www.fao.org/sd/dim_pe1/pe1_040702_en.htm)

information and lack of understanding among partners on:

- Situation in the field from a gender perspective
- Government or organizational mandates for gender equality
- Policies and programmes targeting gender equality
- Efforts of stakeholders and other actors in promoting gender equality,
- Commitments of stakeholders to contribute to gender equality
- Good practices on women's empowerment and gender-equality as experienced by the partners or by others in areas related to the project

Gender results should be integrated in the regular means of communication (e.g. newsletters, reports, web-site) to promote information sharing and contribute to awareness building and advocacy efforts. Alongside this, it would be beneficial to consider communicating gender results in specific reports developed to highlight the gender dimensions of the intervention. Other possible means to communicate information on gender issues and results are through workshops, posters, flyers, or the dissemination of case studies and success stories.

It is important for the communication team to be aware of bridging the information gap to suit the different types of stakeholders (e.g. donors, policy makers, entrepreneurs, project staff, etc.) through using channels adapted to their specific needs and realities as well as adopting gender-sensitive language. In order to ensure this, job descriptions of project experts and staff, including for communications should specifically include gender responsive and sensitive communication materials production and delivery.