

# **Gender Analysis of UNDP Energy Portfolio and a Framework for Action**

Submitted to UNDP

**Soma Dutta**

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## Contents

Abbreviations and acronyms .....	I
Executive Summary.....	II
1. Introduction, objectives and methods.....	1
1.1 Introduction .....	1
1.2 Approach and Methodology .....	2
1.3 Guiding principles for the review.....	5
2. General context for the review: Key trends in gender, energy and climate change.....	6
3. UNDP's gender equality and energy sector priorities.....	8
3.1 The UNDP Gender Equality Strategy.....	8
3.2 Delivering Sustainable Energy in a Changing Climate strategy.....	8
3.3 De-risking Renewable Energy Investment (DREI) Framework.....	9
4. UNDP's global and regional approaches.....	11
4.1 Climate Investment Platform.....	11
4.2 UNDP COVID 19 ENERGY Offer .....	12
4.3 UN's Renewable Energy Offer for the Sahel .....	12
5. Energy Portfolio Analysis: UNDP projects on energy access .....	13
5.1 Context: Core gender issues in energy access .....	13
5.2 Analysis of projects working on energy access.....	14
5.3 Lessons learned and good practices .....	18
6. Energy Portfolio Analysis: Energy efficient transport and infrastructure solutions in urban planning .....	21
6.1 Context: Core gender issues in urban planning .....	21
6.2 Analysis of projects working on urban planning.....	22
6.3 Lessons learned and good practices .....	25
7. Policy advice on energy and climate change .....	27
7.1 Context: Core gender issues and how they are mainstreamed in energy sector and climate policies .....	27
7.2 Analysis of national level climate and energy policy development experiences.....	28
7.3 Lessons learned and good practices .....	33
8. Key messages .....	36
8.1 On energy access projects .....	36
8.2 On energy efficient transport and infrastructure solutions for urban planning projects.....	37
8.3 On policy advice .....	37
8.4 Global and regional initiatives .....	38
8.5 Cross-cutting concerns.....	38
9. Recommendations and a framework for further strengthening the gender results in the energy portfolio .....	40
9.1 Strategic framework for embedding gender into UNDP's energy sector work.....	41
9.2 Strengthen impacts in existing thematic areas.....	42
9.3 Seize opportunities in new areas of work.....	46
10. Moving forward: A framework for implementation.....	50
10.1 Action area 1: Clarify roles and responsibilities to deliver on gender mainstreaming actions within the Energy team.....	50

10.2	Action area 2: Strengthen the corporate systems for goal-setting, tracking and reporting on gender equality results .....	52
10.3	Action area 3: Develop and make available tools and resources for energy team and other partners.....	54
10.4	Action area 4: Strengthen capacity of UNDP’s energy team .....	54
10.5	Next steps .....	55
	Annex 1. UNDP Projects and initiatives reviewed .....	57
	Annex 2. Project Documents reviewed.....	58
	Annex 3. References .....	61
	Annex 4. List of reviewed NDCs .....	65
	Annex 5. Interviews conducted .....	66
	Annex 6. Highlights of an assessment of NDC submissions.....	67

## Abbreviations and acronyms

AfDB	African Development Bank
DREI	De-risking Renewable Energy Investment
ECOWAS	Economic Community of West African States
ECREEE	ECOWAS Centre for Renewable Energy and Energy Efficiency
GCF	Green Climate Fund
DGC	Global Distributor Collective
GEF	Global Environment Facility
HEPA	Health and Energy Platform of Action
IRENA	International Renewable Energy Agency
IUCN	International Union for Conservation of nature
KENGEN	Kenya Electricity Generating Company
MECS	Modern Energy Cooking Services
NAMA	Nationally Appropriate Mitigation Action
NDC	Nationally Determined Contribution
NDC SP	NDC Support Programme
PAGCC-Peru	Gender and Climate Change Action Plan of Peru
PAYG	Pay as you go (business model)
PUE	Productive Use of Energy
RE	Renewable energy
RERL	Renewable Energy for Rural Livelihood
SDG	Sustainable Development Goal
STEM	Science, Technology, Engineering and Mathematics
UN DESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction,
UNE-FI	United Nations Environment-Finance Initiative
UNFCCC	United Nations Framework Convention on Climate Change
WEDO	Women’s Environment and Development Organization
WFP	World Food Programme
WtE	Waste to Energy
WePOWER	Women in Power Sector Professional Network in South Asia

# Executive Summary

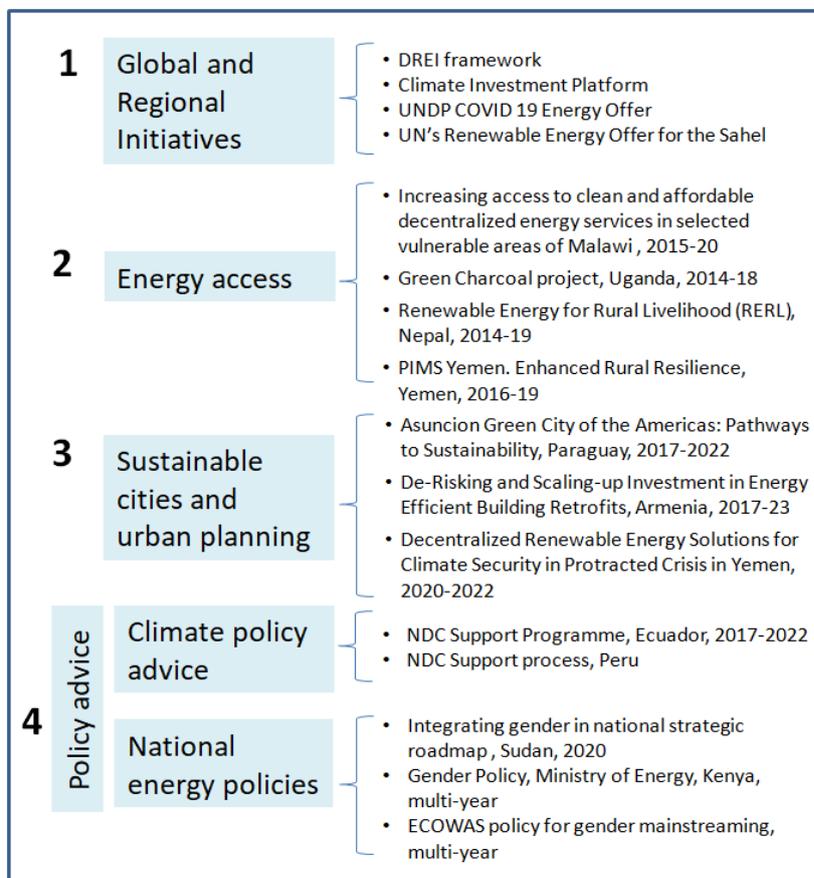
## A. Objective and approach

This assignment aims to developing an evidence-based approach that can be used in future sustainable energy strategy, policy and planning documents, programmes/projects, initiatives and investment frameworks. This is done through:

- ✓ UNDP energy portfolio review, to map approaches on gender equality under the following thematic areas:
  - UNDP’s global and regional approaches
  - Energy access projects
  - Sustainable cities and urban planning projects
  - Policy advice

In all, 17 UNDP projects were reviewed, as part of this analysis.

- ✓ Review of global literature on gender and energy and nationally determined contribution (NDC) submissions.
- ✓ Stakeholder Interviews, including UNDP energy team members.



Reviewed projects

## B. Key findings of the review

**Within the UNDP energy sector portfolio, the performance and reporting on gender has improved over the years and is more structured than before.** The requirements of the environmental financing mechanisms have ensured that the vertical fund (VF) initiatives include specific gender actions in the project life cycle. **However, the performance is variable**, with some projects being ambitious, while others committing only to the bare minimum required in terms of gender.

### B1. Energy access projects

- In all energy access projects, men and women enjoy direct benefits of modern energy, and women participate in training and some income generation activities. **Results are less visible in transformative areas** of women gaining owning energy assets, benefitting from productive use of energy; leading to their economic and social empowerment.
- Strategies to promote women’s energy entrepreneurship and their involvement in productive use of energy have not been utilized sufficiently in energy access projects.

- The project-policy link or the extent to which gender mainstreaming lessons from projects are being translated to policy advice has been variable, in the case of energy access projects.
- There is good scope for improvement in aiming for higher gender outcomes and tracking better the progress and results on gender.
  - Raising the level of ambition on gender in energy projects
  - The results frameworks mostly reflect the low level of ambition and do not include outcome level indicators and mostly track minimum output indicators.
  - As a consequence, even when significant gender results are experienced, they not find a prominent place in reporting.
  - Higher order results of women’s empowerment and transformation in gender relations are, at best, captured anecdotally.

## B2. Energy efficient transport and infrastructure solutions for urban planning projects

- **Designing gender-sensitive transport and infrastructure interventions**, including safety measures to address harassment against women in public spaces have worked well.
- **Engaging women’s groups** is a useful strategy to mobilize women, especially in situations where they are vulnerable and hesitant to take up activities by themselves.
- Engaging national governments, **municipalities, as well as stakeholders like Mayors, has worked well.**
- Encouraging gender parity in employment through organizations participating in projects has worked well. However, efforts are required to institutionalize this in the national systems by working closely with the government, both local and national.
- An area that has not found much attention is urban slums, where women face a range of issues. This area may be looked at more closely moving forward.

## B3. Policy advice

UNDP’s policy advice works spans across several areas, including using its own project experience and evidence for national policy development, and direct support to national climate and energy sector policies, legislation and regulation through initiatives like NDC support (NDC SP) Programme.

The positive impact of the NDC Support Programme is evident in several countries, including Peru and Ecuador. Good practices in advising policy include:

- Embedding climate actions within the national mandates on gender equality
- Involving gender specialists throughout the process
- Demonstrating through pilots (like the e-mujer in Peru) how gender can be incorporated within technical fields like renewable energy
- Strong inter-institutional coordination between national bodies that deal with climate change and gender equality and engaging civil society and women’s organizations

## B4. Global and regional initiatives

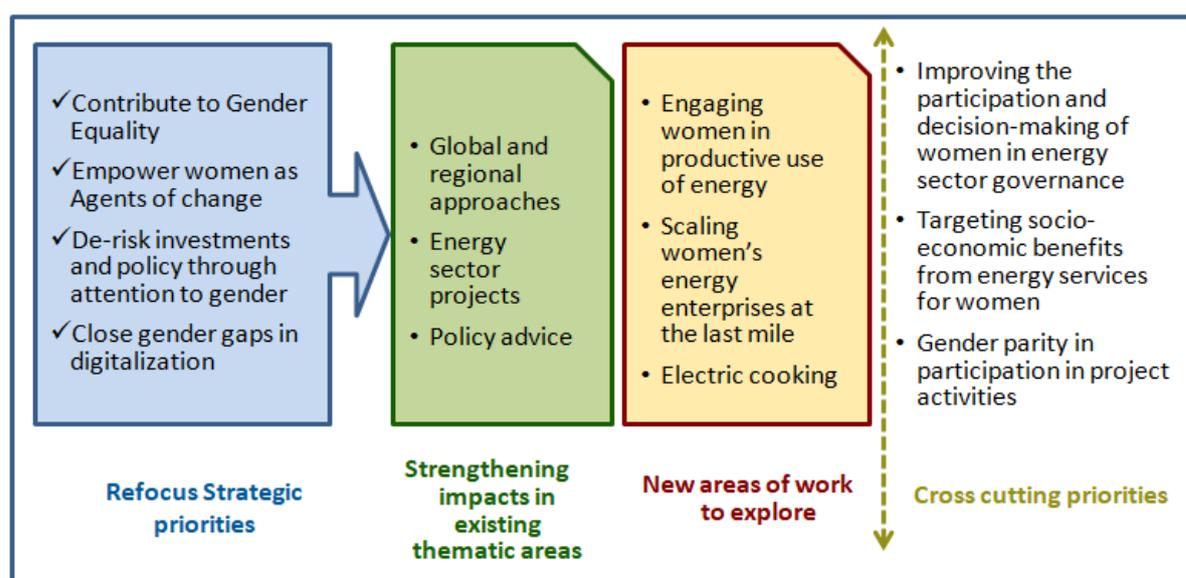
UNDP’s regional and global initiatives provide an excellent platform to integrate gender at a large scale. Some of these like the UN’s Renewable Energy Offer for the Sahel integrate gender well, however, others like the DREI framework do not consider gender or social dimensions as an element of de-risking.

Across all of these, there is a need to have common operational procedures for all global and regional initiatives.

## C. Recommendations and a framework for action

### C1. Strategic framework for embedding gender into UNDP's energy sector work

- At the **strategic level**, the focus/ rationale of mainstreaming gender in energy sector should be to empower women and to maximize the coherence between UNDP's gender equality mandate and energy sector priorities.
- Measures to **strengthen impacts** in existing thematic areas.
- Recommendations on **new areas of work**, issues/ areas in which UNDP does not have a strong presence currently, but are suggested as thematic areas to start engaging in.



**Strategic framework for embedding gender into UNDP's energy sector work**

At the strategic level, the framework proposes three pillars for positioning gender in the energy sector work of UNDP:

- **Focus of gender in energy sector:** The central focus of UNDP's energy interventions is to enable or catalyze inclusive development. In this context, gender equality and women's empowerment aims at closing gender gaps and improving their access to market, ownership and control of economic assets. It is suggested that in addition to this, the following two arguments/ objectives be made central to the positioning of gender mainstreaming in the energy portfolio.
- **Gender mainstreaming as a policy and investment de-risking measure.** "Social de-risking" or enhancing the community/ household level acceptance of interventions like energy efficiency measures, clean cooking etc is critical to success and sustainability of energy investments. Women, individually and through their networks, are uniquely positioned to disseminate as well as enhance the acceptance of energy technologies, especially at the last mile.
- **Women as agents of change, collaborators and innovators in global energy transition.**

**At a strategic level, there is also a need to raise the level of ambition for gender results in UNDP projects and activities.** In most projects, the current level of expectation from gender actions is modest.

**Energy Access Technical Working Group of the High-level Dialogue on Energy:** UNDP is one of the co-leads of the Energy Access Technical Working group, and well positioned to drive a gender-responsive agenda. A number of actions can be thought of and led by UNDP:

- Set up a task force on the subject within the Access group (possibly in partnership with ENERGIA)
- Prepare a forward-looking flagship publication on gender and energy in collaboration with the Working group on enabling SDGs, offer to dominated periodic round-tables on gender (and social) related issues, such as women's entrepreneurship, women in productive use of energy, employment etc.
- Offer to host a helpdesk (possibly in collaboration with ENERGIA) to arrange advisory services on gender and energy, this could also be aligned with one of the global initiatives of UNDP
- For a sample of its partner countries (most responsive ones), offer to demonstrate on the ground a working model of a national level gender-responsive energy access programmes

## **C2. Strengthen impacts in existing thematic areas**

### **Actions to mainstreaming gender in global and regional approaches**

In all its global and regional approaches, UNDP should adopt a bold target to reflect the commitment to gender, for example, *75% of all initiatives will make a substantial contribution to gender equality and women's empowerment by 2025.*

At the same time, gender should be mainstreamed in all initiatives by making the following adjustments to the operational procedures and applying them to all new initiatives.

- All key documents such as concept notes, strategy documents, call for applications/proposals, especially those which have an interface with clients<sup>1</sup>, should include a commitment to and clear guidance on mainstreaming gender.
- Emphasize gender issues in all missions and meetings.
- Partners must be required to submit applications/ proposals that contain or plan gender assessments and project-level gender action plans, along with dedicated budgets.
- For institutions submitting proposals/ applications, UNDP should provide concrete guidance on designing gender responsive interventions, along with concrete examples of entry points (for example, in urban transport, clean cooking, powering healthcare), along with relevant resources and contacts in countries/ projects where such entry points have been utilized.

### **Actions to strengthen the impact of energy sector projects<sup>2</sup>**

- In new projects, explore opportunities such as engaging women in the conceptualization and production of clean energy transportation technologies (like electric vehicles), supporting women's energy enterprises and existing businesses through productive use of energy through mini-grid and other energy access projects; and investing in social infrastructure.

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<sup>1</sup>Clients, in this context, refers to external stakeholder such as national governments, partner institutions and other organizations

<sup>2</sup>This section includes recommendations for both energy access and urban energy projects.

- Build in a gender policy advice element in all energy sector projects, ensuring that the on-the-ground experience and lessons from energy access and energy efficient urban infrastructure projects is translated into national policies in the energy sector, and more broadly in the climate actions.
- Raise the level of ambitions on gender in the energy projects, by ensuring essential gender mainstreaming elements in project design and implementation, including a robust gender assessment in all activities.
- Strengthen monitoring of and reporting on gender aspects in projects. This includes disaggregation of relevant data by sex, including gender-responsive outcome level indicators and targets in the results framework, collection and systematic reporting.
- In addition to monitoring projects, track the gender responsiveness of the energy portfolio as a whole. Possible indicators include number of projects/ funding proposals that include promoting gender equality as a primary objective; number of approved funding proposals (in new initiatives) that contain a gender assessment and a project-level gender action plan.

### **Actions to strengthen policy advice**

**Moving forward, UNDP's NDC Support programme remains the best channel to integrate gender into national climate policies.** In providing advice on gender mainstreaming energy sector and in climate change actions,

- Plan for an engagement of at least 5-7 years in any country on policy advice
- Ensure that all policy development processes are led and owned by the national governments, with external agencies like UNDP in a support role.
- Allocate funding to build capacity and raise awareness on the link between gender and climate change, especially in technical sectors such as construction and transport.
- Within projects and in policy advice, engage gender specialists and dedicate separate budgets for gender-related activities.
- Engage with national partners such as Ministries of Women Affairs to increase their understanding of how energy technologies can benefit women and girls in order to contribute substantively to policymaking discussions.
- As governments respond to the pandemic with economic stimulus packages, UNDP should assist in the process. In the context of gender and energy, priority areas include the following:
  - Ensure energy access and clean cooking solutions as crucial blocks needed for building a sustainable future for poor rural and peri-urban families.
  - Access to appliances, which will have a bearing on women's well-being and their ability to start home-based businesses that may be more important in the new normal

### C3. New areas of work

Women as a key target group in productive use of energy interventions	Scaling up of women's energy enterprises at the last mile	Engage in electric cooking interventions in developing countries
<ul style="list-style-type: none"> <li>• Include additional measures in ongoing and new PUE projects, identifying gender-specific gaps in the baseline assessments in the area of women's livelihoods, and targeted measure to address these.</li> <li>• Consciously map out entry points within energy access activities with linkages to occupations where women predominate</li> </ul>	<p>Build in women's entrepreneurship in projects:</p> <ul style="list-style-type: none"> <li>• Work with private sector to create opportunities for women in value chains</li> <li>• Test new approaches to engage with women</li> <li>• Facilitate access to finance</li> <li>• Test and promote the use of digital platforms</li> </ul> <p>Utilize this experience in national level policy making</p>	<ul style="list-style-type: none"> <li>• Create an enabling environment that crosses the division between the electrification and clean cooking sectors</li> <li>• Creating spaces for dialogue between stakeholders in the clean cooking and electrification sectors,</li> <li>• Support utilities and mini-grid developers to pilot, and scale up e-Cooking services</li> </ul>

### D. Making it work: priority actions for implementation of recommendations

#### D1. Clarify roles and responsibilities on gender mainstreaming actions within the Energy team

- **Heads of Energy team:** The final responsibility for gender mainstreaming rests with the heads of energy team, who should take the strategic decisions which the gender task team can operationalize and develop necessary competencies within the team. They should also ensure that gender is reflected strongly at the core of the energy strategy and that all new programming incorporates a strong gender angle formalize partnerships and collaborations on gender.
- **Gender focal point and gender task team:** The gender task team should be a three-member team including both men and women: its role should be that of a facilitator, with the accountability for gender mainstreaming in projects/ activities with the project leads. The gender focal point and the gender task force should be on rotation for a term of two years.
- **Project/Initiative Leads,** have the final accountability for gender mainstreaming, including ensuring a gender assessment, planning/ budgeting for gender activities, capacity building, and monitoring and reporting on gender. All projects that have/ likely to have a significant gender component must have a dedicated gender consultant right from the design stage.

#### D2. Make available necessary tools and resources for energy team and other partners

There is a need for more practical guidance and concrete ideas on gender than what is currently available, especially in the normative areas such as policy/ regulations/ investments/ market development etc. Given this, there is a need to collate such resources in an easy-to-use form.

- **A basic gender and energy module** with core gender and energy concepts, UNDP's gender priorities for the energy sector, and introduction to other material available
- **A gender mainstreaming package** that contains concrete entry points, along with a listing of available examples and resources, for each type of activity: energy access, urban energy, policy advice, climate action (1-2 pages for each intervention type). In addition, a 30 minute pre-recorded webinar on each topic and on-demand gender consultants can be considered as well.

- **Tools for programming**, including quick-lists to integrate gender into ongoing tasks: for gender-reviewing projects; developing work-plans; organizing workshops; developing ToRs; preparing budgets and communication. This can be done with support of the gender task team.
- **Sample indicators** for measuring gender results, including in women’s entrepreneurship, productive use of energy, employment, infrastructure, climate action and in energy policy advice. This can be done through a short consulting assignment.

### **D3. Strengthen capacity of UNDP’s energy team to mainstream gender in their work**

Within the energy team, it is important to build a common understanding of the overall gender mainstreaming objective of the energy portfolio, as well as practical knowledge of what steps to take within each person’s own area of work.

- Each team member, at the time of on-boarding, to go through the basic gender and energy module, to ensure that are all up to date with state-of-the-art approaches on gender-energy
- Depending on their specific requirements, each team member can tap into available resources.
- The Gender team can organize a brown-bag session once in six months, with one of the good practice projects sharing their experience

### **E. Next steps**

- Prepare an update note on the gender review undertaken, the main findings and the agreed plans (gender task team) and share with the Energy Team
- An initial planning cum training session for the gender task team. This can be organized by an external subject specialist.
- A meeting of the whole Energy team, led by the Heads, to introduce the gender mainstreaming priorities and actions.
- In order to operationalize the recommendations, 2-3 person teams may be formed for the following tasks:
  - to integrate gender equality and energy into the post 2021 UNDP strategic plan
  - to work with the gender task team to develop a time bound capacity development plan (time frame: 3 months)
  - to further explore each of the new areas suggested for new work and prepare a plan of action (time frame: 3 months)

# 1. Introduction, objectives and methods

## 1.1 Introduction

Addressing gender equality and women’s empowerment is central to the core vision of United Nations Development Programme (UNDP). At the same time, sustainable energy is a priority area in UNDP’s current strategic plan as energy is an engine for poverty eradication, social progress, gender equality, enhanced resilience, economic growth and environmental sustainability. With the overall intent of strengthening UNDP’s work on the intersection between energy and gender equality, this assignment is aimed at developing an evidence-based approach that can be used in future sustainable energy strategy, policy and planning documents, programmes/projects, initiatives and investment frameworks. More specifically, the sub-objectives are to:

- Review UNDP’s energy sector portfolio to assess how its various approaches, initiatives and projects contribute to gender equality and women’s empowerment
- Draw good experiences and lessons from other global initiatives and institutions working on gender and energy
- Utilize this analysis to develop a methodology/approach that be applied in future sustainable energy initiatives to effectively mainstream gender

This document presents the results of the analysis of its energy sector portfolio and other global experiences, uses this to make recommendations for strengthening the gender results of UNDP’s energy portfolio, and present a framework to guide future projects/initiatives, as well as investment initiatives to ensure gender equality and women’s economic empowerment is well addressed. This report does not provide specific inputs or suggestions for individual projects, but more broadly at the portfolio level. The report is structured in three

Section 1: Introduction	1	<b>Chapter 1</b> is the introduction, which includes the objectives and the methodology for the review
	2	<b>Chapter 2</b> presents the key trends in gender, energy and climate change, which is the context for this review
Section 2: Review	3	<b>Chapter 3</b> presents an overview of UNDP’s gender equality and energy sector priorities, which is the starting point for the review
	4	<b>Chapter 4</b> reviews UNDP’s global and regional approaches in the energy sector
	5	<b>Chapter 5</b> presents a review of select UNDP projects working on energy access
	6	<b>Chapter 6</b> presents a review of select UNDP projects on energy efficient transport and infrastructure solutions in urban planning
	7	<b>Chapter 7</b> reviews UNDP’s and other experiences with gender mainstreaming in energy and climate policies
Section 3: Recommendations and framework for action	8	<b>Chapter 8</b> summarizes the key messages from the reviews undertaken
	9	<b>Chapter 9</b> makes recommendations for further strengthening the gender results in the energy portfolio
	10	<b>Chapter 10</b> identifies priority actions and next steps for implementation of the recommendations

sections and ten chapters (see figure).

## 1.2 Approach and Methodology

The review has been carried out through a combination of literature review and interviews.

### 1.2.1 Review of good practices and lessons learned

Aligning with UNDP’s work in the area of energy sector, an attempt is made to review literatures, including that on UNDP projects and initiatives, as well as others, to map approaches and interventions under the following thematic areas:

- **UNDP’s global and regional approaches**
- **Energy access projects**, covering implementation of renewable energy, clean cooking, women’s entrepreneurship projects
- **Sustainable cities and urban planning projects**, including transport and e-mobility, waste disposal, energy efficiency and renewable energy in buildings and industry
- **Policy advice** which includes (a) advising on climate policies and instruments, including support on nationally determined contributions (NDCs), Nationally Appropriate Mitigation Action (NAMAs), green growth strategies; and (b) advice on mainstreaming gender in energy sector policies, including those on renewable energy, national biomass strategy etc

An attempt has been made to identify 2-3 good practice examples in each of the above thematic areas, either from within the UNDP portfolio or outside, which were examined in greater detail.

For the purpose of this review, a good practice is defined to have a number of elements, as shown in the figure (EIGE, undated, and UN Women undated). In the context of energy sector work, a good practice leads to a positive change in energy or climate change policies, legislation; strategies, plans and budgets; statistics- greater sex disaggregation, improved gender analysis of data, or identifying gaps in the data base; and procedures and processes.

<b>Context-appropriate</b>	Takes into account available resources and the given context
<b>Works well</b>	Corrects a recognized gender imbalance and demonstrates results in terms of contributing towards gender equality
<b>Scalable</b>	Works on an operational model/ gender strategy that is transferable
<b>Well-embedded</b>	Aligned to a wider gender mainstreaming strategy and is not a one-off strategy
<b>Sustainable</b>	Conditions are created to ensure the continuation of the practice itself and/or results/transformation it has produced toward better policies even after the intervention has ceased.

Figure 1. Good practice elements

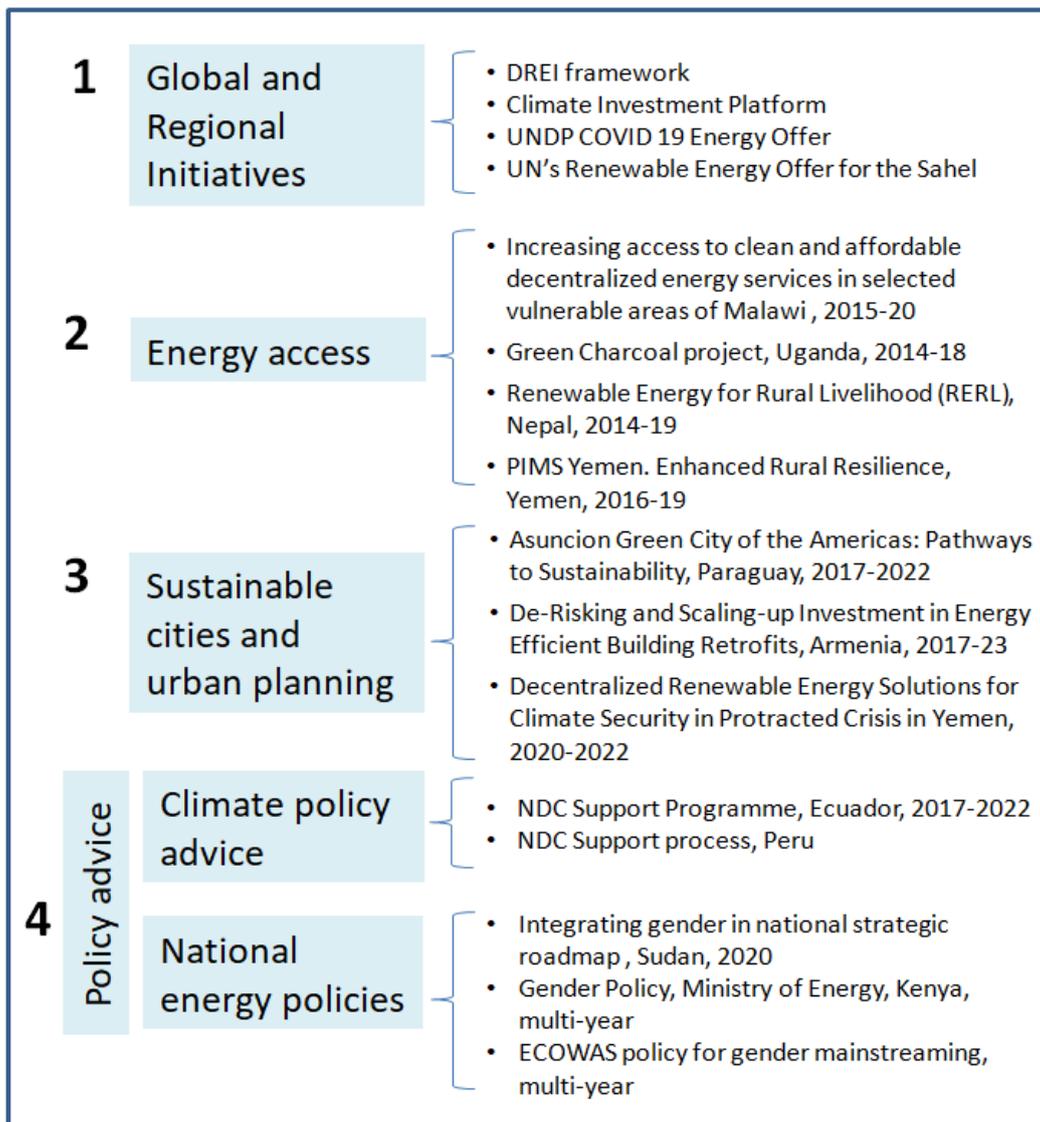
#### UNDP energy sector portfolio review

The first-cutselection of UNDP projects to be reviewed was made by the UNDP team, covering the above themes, and mainly supported by the GEF and the GCF. Discussions were also carried out with project managers and gender specialists, in order to assess how gender mainstreaming was applied in each project. The review looked at whether and how gender issues were identified; what activities are planned to address these; and what has been the implementation experience. Particular focus

was on good experiences which have made structural, long-lasting impacts on sustainable energy and gender equality. In particular, the following were examined:

- Inclusion of gender considerations in project documents including in the results framework (actions, gender-sensitive indicators and targets disaggregated by sex)
- Gender assessment and a gender strategy/ gender action plans
- Gender focused actions undertaken within the project
- Impact areas, including:
  - Immediate results for women and men, including access to improved energy services;
  - Quality of life benefits, such as improved health, reduced time spent in fuelwood collection;
  - Achievement of transformative gender results, in terms of reducing gender inequality and social risks, change in gender relations and enhancing the resilience of women and men with respect to environmental and climate impacts and risks.
- Project-policy link, focusing on the project's contribution to design and/or implementation of local or national energy/ environmental policies or strategies with a gender approach

The details of the projects reviewed are included in Annex 1. In addition to global and regional initiatives, 17 UNDP projects were reviewed. A selection of these, which had relatively higher content of gender results, and representing a variety in terms of technology type/ application, geographies, funding type and time frame, have been presented in this report as case studies.



**Figure 2. Reviewed projects and initiatives**

For each of these, information was gathered through a secondary research including available project documents (ProDocs, annual project implementation reports, gender action plans, evaluation reports (mid-term and end of project) and communication products that highlight how the project promotes gender equality and women’s empowerment. The list of project documents reviewed is included in Annex 2. In addition to the ones supported by UNDP, a number of other recent submissions of NDCs were reviewed (Annex 4), as were key documents of climate financing initiatives, and national level energy policy documents.

### 1.2.2 Global literature review

A literature review of published and grey literature on gender mainstreaming in energy access and climate change was conducted to examine what gender mainstreaming approaches are used by other stakeholders, what has worked at scale and offers replicable results and what lessons can be learned. These are included in Annex 3.

### 1.2.3 Stakeholder Interviews

Key UNDP staff members responsible for projects as well as new initiatives were interviewed. In addition and in order to understand the landscape of project and policies in the gender and energy

space, and possible complementarities with other organizations, select institutions were interviewed. A list of interviews conducted is listed in Annex 5.

### 1.3 Guiding principles for the review

In undertaking this review and making recommendations, the following principles were kept in mind:

- a) **Framing the gender equality discussion:** While gender equality requires that women and men should equally participate in and benefit from development, the focus of gender equality measures in the discussion here is predominantly on women. This is because universally, where gender inequality exists, it is generally women who are excluded or disadvantaged in relation to decision-making and access to economic and social resources. There are clear patterns of women's inferior access to resources and opportunities. Moreover, women are systematically under-represented in decision-making processes that shape their societies and their own lives.
- b) **Value addition and comparative advantage:** The proposed approach builds on UNDP's strengths, including its global and on-the-ground network in over 170 countries. Majority of UNDP's assistance is provided through country-specific interventions. In addition, UNDP is engaged initiatives at the national, regional and global levels that focus on policy positioning and advocacy and in some cases, guide a number of country-level projects.
- c) **The commitment to leave no one behind:** The recommendations should be guided by the 2030 Agenda for Sustainable Development principle to 'Leave No One Behind', ensuring that the vulnerable including women don't fall behind and the capacities of institutions and communities are strengthened to cope with shocks and seize new opportunities and that socio-economic inequalities are reduced. At the same time, it enshrines the integration of the SDGs, balancing various dimensions of sustainable development.
- d) **A gender equal approach to building back better:** At this point, designing and implementing energy interventions must be done in a way that is responsive to the gender-differentiated impacts of the COVID-19 crisis, for an effective response and recovery. It is well established that while the crisis affects everyone, women and girls face specific and often disproportionate economic, health and social risks, from worsening rates of gender-based violence to an increased burden of unpaid care work. This is due to deeply entrenched inequalities, social norms, and unequal power relations.

## 2. Context for the review: Key trends in gender, energy and climate change

The 2030 Agenda for Sustainable Development provides an ambitious roadmap and a framework to eradicate poverty and achieve sustainable development for all. The Agenda, adopted in 2015, is unique in that the goals are integrated and indivisible, balancing various dimensions of sustainable development and pledging to leave no one behind. A global political commitment to ensure access to affordable, reliable, sustainable and modern energy for all is articulated via SDG7. Achieving SDG7 is also seen as essential for achieving other SDGs, including those related to gender equality, health, poverty reduction, climate and environment (UNEP 2020a).

At this juncture, aside from the implications of COVID 19, the overall context in which energy access interventions are being made is changing rapidly, generating new opportunities and throwing up new challenges, which are important for this review.

**A significant population continues to live with poor energy access.** In spite of the huge strides made in energy access globally, 789 million people, mostly concentrated in Sub-Saharan Africa, are still living without electricity in their homes, and 2.9 billion people across Asia and Africa don't have access to clean cooking solutions (IEA, IRENA, UNSD, World Bank and WHO 2020).

**The energy sector is experiencing a fundamental shift towards a renewable, de-carbonized energy system.** In the future, decentralized renewables for energy access systems will play a pivotal role in meeting universal energy goals. Such systems provide good opportunities to open new economic potential for the poor, unlock resilient livelihoods for communities, and employment and entrepreneurship opportunities for women and their groups, especially in last mile communities (UNEP 2020a). Access to electricity for irrigation, processing equipment or early warning systems entails significant benefits to increase the resilience of farmers, including women. Three key trends are converging behind this opportunity: first, continued reductions in hardware costs – in solar modules, batteries and energy efficient appliances; second, a digital revolution, with mobile communication technology facilitating payments and monitoring, as well as new fintech solutions (for example, end-user credit assessment); and third, innovation in business models, such as pay-as-you go (PAYG) and third-party ownership for solar home systems, which offer energy as a service, and can remove previously prohibitive up-front costs for households. A remaining challenge is to increase investment from current levels (UNDP and ETH Zurich, 2018).

**With more countries embracing mini-grids and solar home systems, government demand is growing for support on how to plan for the energy infrastructure of the future.**

Integrated electrification is a focus area of the new Global Commission to End Energy Poverty, and many others such as IRENA, the World Bank, WRI and SEforALL. DFID is finalizing a set of key principles for ensuring donor alignment vis-a-vis strategic energy planning. Additional focus is also emerging on the implementation gap that exists in putting plans into practice (Power for All, 2020).

**In developing countries, women bear most of the responsibility for household tasks.** These include heavy tasks like collecting water and firewood, cleaning and washing, with women bearing 60-80 percent of unpaid domestic work globally. At the same time, as informal workers and entrepreneurs, women earn less, save less, and hold more insecure jobs. Since the outbreak of COVID 19, unpaid care work in homes is increasing due to social distancing practices, school closures and home schooling, heightened care needs of older and sick people, and more cooking being done at home. At the same time, the pandemic is deepening pre-existing inequalities, exposing vulnerabilities in social, political and economic systems which are in turn amplifying the impacts of

the pandemic and threatening livelihoods of millions of people (United Nations 2020). In every sphere, health and personal well-being, economy to social protection, the impacts of COVID-19 are exacerbated for women and girls simply by virtue of their sex. For poor households, the economic slowdown could also cause a return to firewood or other polluting cooking fuels, due to loss of income or disruptions in fuel supply chains. For women who are primarily responsible for collecting cooking fuel, this means a high risk of exposure to gender-based violence while procuring cooking fuels, particularly in humanitarian and fragile settings (Clean Cooking Alliance 2020, United Nations 2020).

**Moving forward after COVID 19, a stable, reliable and affordable electricity supply ensuring energy access can help reduce women’s care burden.** This will be required for switching to electric appliances; addressing the gender digital divide in access to digital services including e-government services, education and digital financial services. An especially serious implication of the lack to computers, phones, internet, radios, televisions or even electricity, is risk of children, especially girls, dropping out of the education system due to not being reached with alternative ways to learn. Regardless of which platform is chosen to distribute educational material, these digital technologies rely on electricity.

**National commitment to consider gender in climate action has been rising, though at a slow pace.** As countries prepare to submit enhanced or revised NDCs, ambitions and actions on climate change at the national level are likely to be ramped up. This provides a fresh opportunity for integration of gender-responsive approaches in these new NDCs. Of the updated or new NDCs submitted in 2020, seven include references to gender. Additionally, of 15 of the countries that participated in a survey on NDCs in Latin America, 80 percent indicated that they are planning to include gender in their enhanced NDC (UNFCCC, 2020a).

The above trend is in recognition to gender equality under the international climate framework, for example under the Enhanced Lima Work Programme, which emphasizes “the continuing need for gender mainstreaming through all relevant targets and goals in activities under the Convention”, and the importance of “advancing gender equality and women’s empowerment (UNFCCC, 2020b). At the UN Climate Change Conference COP 25 in December 2019, countries agreed to the five-year work programme and gender action plan which forms the overarching international policy framework on gender and climate change. As part of this, countries committed to mainstreaming gender “through all relevant targets and goals in activities under the UN Climate Change Convention as an important contribution to increasing their effectiveness, fairness and sustainability”. UNDP, through its 'Climate Promise' aims to help 100 countries enhance their NDCs.

In international climate finance mobilization, many of the International climate initiatives such as the Global Environment Facility (GEF), Green Climate Fund (GCF), the Climate Investment Fund, are paying greater attention to gender equality. Institutions such as the Inter American Bank, Triodos Bank etc are also committing to pay attention to these issues in lending operations, as well as make direct investments in this direction, and most importantly, put in place accountability measures to measure, count and report.

## 3. UNDP's gender equality and energy sector priorities

UNDP's energy and gender work are guided by a number of foundational strategies, starting with its overall energy strategy as elaborated in the document "Delivering Sustainable Energy in a Changing Climate Strategy" (UNDP 2016a). The work on renewable energy is also guided by its de-risking Renewable Energy Investment Framework (DREI), which aims to reduce barriers to policy, legislation, regulation, institutions, financing and awareness that inhibit scaled-up investments in sustainable energy. In 2017, the UNDP Strategic Plan 2018-2021 identified energy and gender equality as two of the six signature solutions (UNDP 2018b). The Signature solutions are viewed as integrated solution pathways in three development contexts – advance poverty eradication; accelerate structural transformations; and strengthen resilience to shocks and crisis. Further, UNDP's Gender Equality Strategy (UNDP, 2018a) also lays down a framework, with which the work in all areas including energy must comply. Together, these underpin UNDP's work on the gender-energy nexus.

This chapter makes some specific suggestions on each of these, which are also distilled into broader strategy level recommendations in chapter 10.

### 3.1 The UNDP Gender Equality Strategy

The Gender Equality Strategy defines the overall framework for the institutional gender ambitions, including that for the energy sector. With an overall focus on "**strengthening gender equality and empowerment of women and girls**", the gender strategy emphasizes removing structural barriers to women's economic empowerment, reducing women's disproportionate burden of unpaid care work; promoting women's participation and leadership in decision-making; and strengthening gender-responsive strategies in crisis prevention, preparedness and recovery. In the specific context of energy, the Gender Equality Strategy highlights expanding women's access to and control of basic services, addressing women's and girls' disproportionate burden of unpaid work and time poverty through access to clean energy; supporting women as consumers, decision makers and entrepreneurs in the transition to clean energy systems; ensuring women's participation in decisions regarding the provision of sustainable energy solutions; and supporting Governments to ensure that women have equal access to clean, affordable and sustainable energy.

To ensure the above, gender is included as one of the key criteria in the Quality Assurance Standards. Tools, such as the gender marker, are used to analyze and monitor gender-responsiveness of projects and programmes, including gender assessment into projects. In projects, this is done in the work planning and budgeting phase, and can also be used for monitoring/reporting. Each activity must be allocated a gender rating of 0, 1, 2 or 3 (UNDP, 2013).<sup>3</sup>

### 3.2 Delivering Sustainable Energy in a Changing Climate strategy

Guided by the SDGs framework and the climate agenda and as elaborated in its Delivering Sustainable Energy in a Changing Climate strategy (UNDP, 2016a), UNDP works towards a sector-wide transformation of energy systems in developing countries, one that is based on market principles, but takes into account the needs of the poor and pays specific attention to advancing gender equality, social inclusion, youth empowerment and protection of the environment. The

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<sup>3</sup> Activities that have gender equality as a principal objective should be rated 3; activities that have gender equality as a significant objective should be rated 2; activities that will contribute in some way to gender equality, but not significantly, should be rated 1; and activities that are not expected to contribute noticeably to gender equality should be rated 0.

Energy Strategy mentions “mainstreaming of gender perspectives in energy access policy and programming, recognizing women’s work and roles and building on their expertise and influence within households and communities can increase the effectiveness of access to sustainable energy solutions for all” as part of the section on “Overview of UNDP policy and programme support”. Specific issues to address include women’s disproportionately large portion of their time on other heavy burdens such as gathering fuel wood and water, cooking and agro-processing; and supporting productive opportunities, enterprise growth and employment. In particular, it mentions the integration of social, economic and environmental dimensions in developing sustainable energy solutions to ensure inclusion of the most marginalized and vulnerable groups, including women, young people and children and leaving no one behind; and addressing of equity and reduction of inequality in income and disparities in gender and urban/rural divides.

### **Recommendations on gender mainstreaming within UNDP’s next energy strategy**

UNDP’s energy strategy already includes a focus on gender equality and women’s empowerment. Moving forward, areas that should take a prominent place in the energy strategy are:

#### Gender mainstreaming in the enabling environment

- Gender mainstreaming as a policy and investment de-risking measure
- Working with national and local governments to develop policies and plans and support legal and policy reform to address women-specific energy needs and collecting, analyzing and using disaggregated data
- Demonstrating to and assisting national governments to adopt gender-responsive energy service delivery, supporting capacity-building

#### Women as agents of change

- Women’s entrepreneurship, especially in the last mile, aligned with the overarching goal of “leaving no one behind and addressing equity” as part of SDGs
- Engaging women in productive use of energy, powering women’s enterprises and encouraging women’s ownership of energy assets. Mini-grids projects, such as the Africa Mini-grids Programme, are a good entry point.
- Gender parity/ engaging women in energy sector jobs

#### Addressing women’s well-being

- Scaling of electric cooking interventions
- Access to energized appliances and labour saving devices for women
- Focus on women’s safety needs (e.g. through lighting streets and community places)
- Attention to energizing water pumping, especially for drinking water, in electrification projects

## **3.3 De-risking Renewable Energy Investment (DREI) Framework**

UNDP’s De-risking Renewable Energy Investment (DREI) framework is a policy and investment analysis framework designed to assist policymakers to cost-effectively promote and scale-up private sector investment in renewable energy in developing countries. The DREI framework identifies the barriers and associated risks which can hold back private sector investment in renewable energy. It

then assists policymakers to put in place targeted public interventions to address these risks. Each public intervention acts in one of three ways: reducing, transferring or compensating for risk.

The DREI mentions social acceptance as a risk arising from possible lack of awareness and resistance to RE in communities and end-users, however stops at that.

### **Recommendations on gender mainstreaming within DREI**

#### **Gender mainstreaming should be considered an element of investment and policy de-risking.**

It is known that men and women have different preferences and face different types of constraints to adopting technology. Since each have different energy uses and priorities, their acceptance of a particular energy intervention is guided by how well it is aligned to their needs and priorities. Recognition of and addressing challenges surrounding women's adoption of technologies, including their access to information and extension services; access to capital to invest in technology; appropriateness of design, including affordability, and cultural acceptability, all affect the uptake of a specific technology or a wider investment or a policy. Hence, understanding and recognizing the perceptions, experiences and inequalities between men and women can help to design interventions that will lead to better and more sustainable development results.

For example, since women are 21 percent less likely to own a mobile phone, they are at a disadvantage in a world where phones provide access to safety, organizing networks, early warning systems, mobile health care, and money transfers (Global Fund for Women, 2020). Not taking this into consideration while planning energy (and other) policies and investments can mean perpetrating existing gender inequities.

**Hence a gender consideration should be a key element of "social de-risking."** Not only will this enhance the quality of investments, but will also bring about gender equality and poverty reduction. This means that considerations as ones below should find place in policies and regulations:

- Articulation of men and women as target groups in energy policy
- Increasing women's participation in decision-making processes related to energy
- Expanding women's employment opportunities in energy sector
- Providing women with opportunities for energy-based livelihoods
- Attention to energy services for healthcare and safety.

Unless these aspects are articulated clearly, there is a chance of these issues getting missed completely.

In sum, UNDP's institutional priorities on the gender-energy nexus can be summarized as energy sector interventions contributing towards (a) poverty reduction; (b) removing structural barriers to women's economic empowerment, including women's disproportionate burden of unpaid care work; (c) promoting women's participation and leadership in decision-making; and (d) strengthening gender-responsive strategies in crisis (conflict and disaster) prevention, preparedness and recovery. It is against this framework that UNDP's gender energy work can be reviewed.

## 4. UNDP's global and regional approaches

This section presents a review of UNDP's global and regional approaches including the Climate Investment Platform and UNDP COVID 19 ENERGY Offer and makes specific observations to each of these. The observations made in this chapter are distilled into broader recommendations for all such approaches in chapter 10.

### 4.1 Climate Investment Platform

The CIP's objective is to act as an inclusive partnership to provide integrated and streamlined support to developing countries and the private sector to accelerate climate investments. It will support countries to de-risk clean energy investments and create an enabling environment that attracts private capital, extending support to countries along four tracks: Track 1 (Targets); Track 2 (Policies and Regulations); Track 3 (Financial De-risking) and Track 4 (Market Place).

The CIP start up phase project document has a Gender Mainstreaming Strategy, and the CIP is registered by UNDP on the corporate programme management system as Gender Marker (GEN) 2, meaning that the CIP is committed to promoting gender equality; women's economic empowerment, their participation in decision-making; and participation of UNDP gender experts.

The CIP Gender Mainstreaming Strategy recognizes women's role in energy access, as primary consumers/ managers in households, in workplace and the wider community; as entrepreneurs in energy companies, and/or are employed in the finance industry; and emphasizes addressing links between gender and climate, and their convergence with other forms of social exclusion, in closing access gaps. Specific actions planned include inclusion of gender parity and women's empowerment into the CIP country- and project-level engagement templates; at least 2 CIP start-up phase engagements to focus on women-specific activities; at least 50% of CIP engagements to include women-oriented activities; capacity building / knowledge dialogue event for CIP country partners; 50% representation in meetings, workshops and stakeholder engagement.

#### Recommendations on gender mainstreaming in the CIP

The CIP's Gender Mainstreaming Strategy provides a good starting point for gender focused actions.

- In its start-up phase, three work-streams/components are planned: 1) Country- and Project-level Activities, 2) Partnerships, Outreach and Communications, and 3) CIP Management, Design, and Scaling. The start up phase will be important to demonstrate and showcase the kind of work the CIP will be leading later on, and for this reason, a strong emphasis on gender is important. In providing country and project level support, gender mainstreaming inputs will be vital in technical assistance and project preparation support provided.
- In the CIP being responsive to 'demand' for climate finance, there is a possibility that a demand for gender mainstreaming may not be forthcoming, unless it is a requirement from a potential donor. For this reason, it is recommended that gender mainstreaming be made an integral part of designing energy/ climate policies and regulations or in working with private sector.
- Possible entry points for the CIP tracks:
  - Track 1 (Targets), which helps countries to raise and specify their climate and energy targets in NDCs, should include ensuring that the various co-benefits of climate actions, including those on gender are highlighted sufficiently in NDCs.
  - Track 2 (Policies and Regulations) should include developing regulations on off-grid electrification and support on mainstreaming gender into off grid electrification.
- An important area for de-risking projects is the "social de-risking" or enhancing the community/ household level acceptance and adoption of interventions in areas like energy access, efficiency measures, clean cooking, where engaging women are known to yield good results.

## 4.2 UNDP COVID 19 ENERGY Offer

The COVID 19 Energy Offer outlines potential energy interventions that could be deployed in the framework of UNDP's Integrated Response for the COVID-19. The document makes a reference to women and children in two specific contexts: first, in the context of cooking energy, suggesting the roll out of clean cooking and heating programmes with a gender approach, as part as an overall clean energy package/approach, as part of "Green stimulus - Sustainable infrastructure investment" and second, in the context of address localized needs of displaced communities.

### Recommendations on gender mainstreaming within the COVID 19 Energy Offer

**There are a few additional areas that are of relevance as the Offer is rolled out and operationalized.**

- Firstly, all activities will need to go through a gender lens, for example, in electrification of existing and temporary health facilities, attention to maternal and child care would be vital. Clinics closer home, where women can go by themselves and where healthcare is available at affordable costs are going to be vital moving forward and in recovery plans.
- Another area that could be strengthened in the COVID Offer is using energy services to build back lost livelihoods, including women's enterprises and income generating activities. In the post-COVID context, access to appliances will have a bearing on women's ability to start home-based businesses that may be more important in the new normal. In homes, energy services will be required to power lighting in work and study areas, phone and internet access to maintain communications, including online home schooling and access to safety information during the pandemic (ENERGIA 2020).

## 4.3 UN's Renewable Energy Offer for the Sahel

This Offer is an integrated approach to trigger sustainable socio-economic growth through increased access to clean energy in the Sahel region. Focusing primarily on off-grid renewable energy solutions in rural areas, it addresses the access to electricity and to clean cooking, and pans to trigger economic growth and agriculture transformation, create green jobs especially for young women and men and reduce poverty.

The offer is framed around three complementary levels of intervention: Level 1, which aims at setting up enabling conditions for the sound development of renewable energy solutions; Level 2, which includes the actual deployment of sustainable energy solutions and basic services; and Level 3 which aims at supporting productive use of sustainable energy, in order to trigger economic growth.

The Offer envisages a comprehensive approach to achieving gender equality results and as such, no further additions are suggested. It includes a number of actions to promote gender equality, starting with an emphasis on clean cooking, promoting women groups, micro-enterprises etc to manage energy infrastructure and services; green jobs for young women including on PV installation and maintenance; using RE for drinking water, irrigation and other domestic and productive uses, and increase the climate resilience of farmers' organizations especially women's organizations, cooperatives and supporting women's entrepreneurs.

## 5. Energy Portfolio Analysis: UNDP projects on energy access

### Gender issues in energy access

- Men and women often have different energy needs and hence, are affected by energy shortages differently.
  - Traditional gender roles, particularly in rural areas, mean that women are disproportionately burdened with household responsibilities, mostly without the aid of labour-saving appliances.
  - Women and children, especially girls, spend significant time and effort in fetching fuel, fodder and water for domestic chores.
  - Indoor pollution caused by burning of biomass fuels contributes to 3.8 million premature deaths each year.
  - When women gain access to modern energy services multiple impacts are seen (freeing up time, improved health, livelihoods and overall quality of life).
  - Productive use of energy (PUE) interventions tend to focus more on men and on electricity, often leaving women out.
- Women entrepreneurs in the energy sector, individually and through groups, are proving their mettle, especially in reaching remote, last mile locations with renewable energy.
- Despite the above, in most instances, energy policies and projects take limited cognizance of the gender perspectives.
- Women continue to remain under-represented in the energy workforce.

### 5.1 Context: Core gender issues in energy access

**Men and women often have different energy needs and hence, are affected by energy shortages differently.** Traditional gender roles mean that the responsibilities of finding energy sources like fuelwood, particularly in rural areas, fall mainly on women. Women and children, especially girls, spend significant time and effort in fetching fuel, fodder and water and in other domestic chores for homes. Burning of biomass fuel causes indoor air pollution, and exposure to smoke from cooking fuels contributes to 3.8 million premature deaths each year. Women and children represent 60 percent of all premature deaths attributed to household air pollution (WHO, 2018). It is also seen that when women gain access to modern energy services, multiple impacts are seen, starting with greater convenience, freeing up their time and reducing their drudgery to improved health, livelihoods and overall quality of life.

**In most instances, energy policies and projects take limited cognizance of the above gender perspective.** This is guided by the assumption that men and women will benefit from energy interventions in the same way. The direct implications of implementing energy policies without integration of gender considerations is that women's needs may not be addressed sufficiently, and at the same time, important information can be missed in their design; meaning these policies discriminate women or other unprotected sectors of the population. For example, even though water collection is a daily, time-consuming task for women; and mechanization can play a significant role in reducing the physical labour involved, research in Kenya, India and Nepal, it was found that water supply was not targeted for electrification (ENERGIA, 2019).

**Currently, opportunities to advance gender equality through productive use of energy (PUE) for women are being missed.** Typically, women and men engage in different types of income generating activities and livelihoods, at different locations, and have different access to enablers such as assets, finance, markets, infrastructure and skills. For this reason, the benefits each derives from using energy in their productive activities differ. Since men are mostly involved in larger enterprises (using more electricity) than those run by women, they are more attractive to private sector suppliers, and are easily targeted for productive use of energy within electrification programmes. Women, who are more reliant on fuels such as firewood and charcoal for running their businesses, are less likely to benefit from electrification programmes, unless they are consciously targeted.

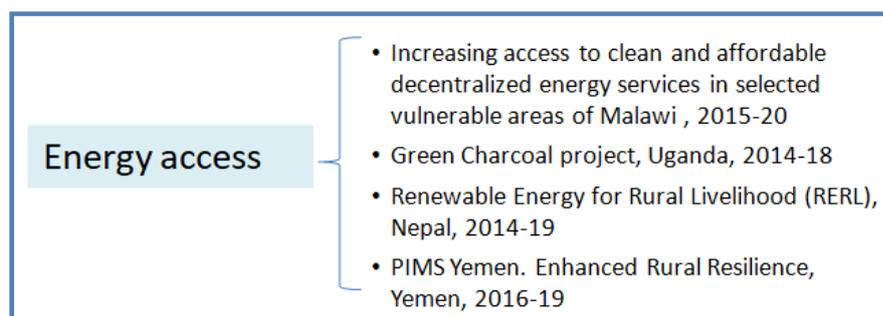
**Women entrepreneurs in the energy sector, individually and through groups, are proving their mettle, especially in reaching remote, last mile locations with renewable energy.**

However, women-owned businesses and energy entrepreneurs typically lack access to markets, market information, digital and personal services, networks, mentorship, necessary ingredients for business growth and sustainability. They also suffer from systemic barriers such as lack of ownership of productive assets such as land, limited access to banks, financial services and credit. As a result, most are constrained in their growth and performance.

**Women are under-represented in the energy workforce, particularly in leadership positions in politics, energy and climate actions.** A global survey conducted by IRENA in 2018 showed that women represent 32% of the fulltime employees of responding RE organizations. However, a disaggregation shows that 45% of administrative positions are held by women, while women represent only 28% of STEM (science, technology, engineering and mathematics) jobs and 35% in non-STEM technical jobs (IRENA 2019). If administration roles are removed, the ratio drops to about a 20% participation rate for women. Women make up less than 20% of the total number of employees in the LAC energy sector (Inter American Bank, 2019). Women are important agents of change and taking them into account when designing energy policies, programs and projects can lead to substantial transformations.

## 5.2 Analysis of projects working on energy access

This section includes a review of four UNDP projects in Asia and Africa.



**PROJECT: Increasing access to clean and affordable decentralized energy services in selected vulnerable areas of Malawi**

2015-2020

Financed by GEF

**Overview:** Project aims to scale up Malawi's mini grid sector, strengthen its first mini-grid energy company and pilot innovative service arrangements for clean energy mini-grids; and recommend ways to mainstream mini-grids into national rural electrification and energy regulatory frameworks. 96% of rural population without electricity access

### Gender Actions

- ✓ Targeted 30% women's inclusion in training in training on clean energy mini grid planning, design, regulations, standards and construction methods
- × No gender assessment
- × Planned training on electric cooking did not materialize due to time constraints.

### Reported Results

- 400 people trained in various aspects of mini grid planning, design, regulations and construction, 25% women
- Almost all households connected to mini-grid: electricity mostly used for lighting, charging phones and radios, enjoyed by women, lighting allows children to study at night
- Electrified health center allows for safer deliveries and vaccination storage
- Women started running hair salon businesses; sale of refrigerated drinks
- Two electrified grain milling plants have women's drudgery as they no longer have to walk to get their maize ground.

### Other untapped possibilities

- Given the versatility of applications possible from electricity from mini-grid projects, the **ambition on gender and other development results could have been higher**, linking electricity to women's income generating activities. And accordingly, some of these results could have been captured in the results framework, including some at the outcome level.
- A gender assessment would have helped identify specific entry points for gender activities, for example, exploring what income generation activities women are engaged in and what is the possibility of productive use of energy in those.
- A gender assessment would also have helped in making a realistic assessment of the value of training women in the various aspects of mini-grid planning.

**PROJECT: The Green Charcoal project: Addressing barriers to the adoption of improved charcoal production technologies and Sustainable Land Management practices through an integrated approach, Uganda**

2014-2018

Financed by GEF

**Overview:** The Green Charcoal project worked with the Ministry of Energy and the local communities to promote improved charcoal production technologies and sustainable land management practices, through technology transfer, enhancement of the national policy framework and the promotion of Sustainable Land Management and Sustainable Forest Management practices. It also supported the government in the development and implementation of the National Biomass Energy Strategy for Uganda

### Gender Actions

×The project document identified a number of gender issues and activities; however, the results framework had no gender disaggregated indicators.

×**No gender analysis was undertaken at the beginning of the project;** however one was undertaken in May 2017, which revealed that both men and women were participating in and benefitting from the project. The following interventions were undertaken after the gender analysis:

✓Women's needs were considered in development of the Namibian Kiln for improved charcoal production.

✓To improve the role of women in the charcoal value chain (men were mainly involved in charcoal production whilst women in trade), the Project strengthened women's charcoal marketing, pricing and contract negotiation capacities as well as introduced them to other enterprises including tree planting, briquette making and crop production.

✓Under climate smart agriculture capacity building initiative, the Project trained both men and women on seed and farm input selection based on quality; and safe use of agro-chemicals.

✓Women were engaged in tree planting as an enterprise and development of woodlots for sustainable charcoal production. Further, capacity of charcoal producing associations, women and youth entrepreneurs, was built in production and marketing of briquettes.

✓The role of women in the charcoal value chain (men were mainly involved in charcoal production whilst women were largely involved in charcoal trade), the Project strengthened women's charcoal marketing, pricing and contract negotiation capacities as well as introduced them to other enterprises including tree planting, briquette making and crop production.

### Reported Results

- 40-45% women were involved in most activities.
- At least 50% of all participating group members are women.
- Several technology and process improvements were made to facilitate women's better engagement, for example, the Namibian Kiln was modified to be portable, user-friendly and suitable for use by women and oxen pulled rippers were introduced to enable women to participate in planting basins.
- Other untapped possibilities
- Outputs reported in the evaluation reports

### Other untapped possibilities

- The project implemented a number of gender focused activities. However, as pointed by the midterm review, outcomes including those on income generation, gender equality and women's empowerment should have been included in the project results framework. In most reports, the gender results are included only in the gender section of the report.
- In 2015, UNDP supported the development of the National Biomass Energy Strategy (NBEST) for Uganda. This was an opportunity to integrate gender in the policy. A review of the BST shows that women have been considered largely as victims of biomass energy use (highlighting the risk of indoor air pollution and the hazards they face in biomass collection). The Strategy is built around six pillars, and women are only mentioned in the context of research and development, that "...in the case of improved cookstoves, the FGDs should include the people who matter most in making the decision to purchase a cooking device. Generally, the women who do the cooking and fuel gathering feel the impact of shortage more than the men...". Even though the policy support was provided during the early years of the Green Charcoal project (2014-2018) (and hence, may not have drawn from the lessons learned in the project), the focus on gender and the role of women in the biomass strategy could have been much stronger, in areas of biomass production, conversion technologies, in design and in awareness raising. **This was a missed opportunity.**

**PROJECT: Renewable Energy for Rural Livelihood (RERL), Nepal, 2014-2019**

**Overview:** The RERL project focused on community-scale power generating off-grid renewable energy technologies to promote income generating opportunities in rural areas, and included four interrelated concepts: (1) promotion of larger-scale, less-disseminated systems, (2) achievement of private sector financing of up-front costs, (3) achievement of financial sustainability (cash flow for repairs and maintenance), and (4) establishment of productive use enterprises to raise system revenues and generate livelihood benefits.

### Gender Actions

Gender and Social inclusion (GESI) was identified as a cross cutting theme, in line with the Nepal government's continued focus on GESI.

In RERL project document, it is also a part of the output on productive use of energy Output 3b.7: "ensured women and marginalized/ vulnerable groups own 33% of the functional electricity based enterprises established".

### Reported results

#### Project level:

- Women received training on house wiring, entrepreneurship, business management, technical skills, financial literacy, cooperative management and skill based training on tailoring, computer education and bakery.
- RERL initiated saving and credit schemes involving women in mini-hydro and solar PV projects, and over 1000 women were engaged in such schemes.
- Training was provided for private sector players (consultants, engineers and technicians) on large scale Solar PV for grid connection, power output verification of mini/micro hydro, MHP operation and management, and RE financing. By 2017, 93 engineers were trained, of which 8 were women.
- Access to finance was facilitated for women and marginalized groups in the demonstration projects through microfinance activities.

#### Policy level:

The project contributed to a number of policy developments in Nepal:

- The project supported the revision of the new RE subsidy policy and delivery mechanism 2016, which provides additional financial assistance to single women headed and disadvantaged households.
- RERL supported Alternate Energy Promotion Centre (AEPC) to formulate its productive energy use promotion modality, which helped women and marginalized communities to establish enterprises using electricity with provision of additional financial assistance. Until 2019, 1500 productive use enterprises were established with financial assistance of AEPC; of which female entrepreneurs operate 70 enterprises.

### Other possibilities / Observations

- The RERL project brought about significant benefits for women and marginalized communities; however, the only outcome area identified in project design was 33% participation of women.
- A number of policies and government actions were supported; however these were not reflected in the reporting on policy, rather separately in the GESI section.
- A significant outcome was the contribution to the Renewable Energy Subsidy Policy, however Outcome 1 (Strengthened legal, institutional and policy environment to support RE and other low-carbon technology development and utilization) does not report on this.
- A large number of women were trained in various areas. However, to what extent this training has been translated into actual ownership of energy assets including productive enterprises is not clear from the reports. One of the successful examples of project's women empowerment is 200kW Simruti Khola Mini Hydro Project, which has women as overwhelming shareholders (this is reported in almost all progress reports as good practice). More broadly, the 2018 Annual report reported that 1,270 productive use enterprises were established with AEPC financial assistance (possibly not with RERL funding); of which female entrepreneur operated 70 enterprises, <5%.
- Hence, to what extent training activities are actually getting translated in greater employment, livelihoods, income earning ability, empowerment and ownership of assets is neither tracked nor reported on.

**PROJECT: Enhanced Rural Resilience in Yemen (ERRY), Yemen**

2016-2019

**Overview:** The three-year joint programme “Enhanced Rural Resilience in Yemen” (ERRY) was implemented in four governorates: people in three off-grid communities were helped to set up solar micro-grids, serving local homes or businesses. After initial training from UNDP and its partners, local people pooled cash grants from the organization to buy the micro-grid equipment and establish businesses selling energy to their neighbors.

### Gender Actions

Women and youth were trained as solar technicians, they also learned how to establish, manage, maintain, and promote their solar micro-grid businesses. The businesses help them move from reliance upon humanitarian assistance to sustaining themselves and helping their communities with their businesses.

### Reported Results

Initially, the women faced scepticism and even mockery from the community. But tasks such as negotiating with tribal leaders and recruiting security guards saw them breakthrough local gender barriers. Now the whole community benefits and the women who made it happen are role models. The scheme has created other benefits for women too – as well as improving security by lighting settlements at night, the reduced financial pressure lessens the risk of families agreeing to under-age marriage for girls.

The solar micro-grid and individual businesses have provided women and youth with a sense of dignity as the income allows them to feed, clothe and shelter their families during a dire time. Women are also starting to take on new roles in their communities. One of the grids is owned and run entirely by women, something extremely unusual in rural areas with strict gender restrictions.

## 5.3 Lessons learned and good practices

### 5.3.1 What results have been achieved by the energy access projects?

**UNDP’s energy access projects have achieved gender-specific results on the ground, even though there is significant variation in the extent. Results are seen in the following themes:**

- A range of energy services are enjoyed by men and women, including improved lighting, mobile phone charging, TVs and radios made possible through electricity; energized health clinics; clean cooking fuels and technologies. Benefits from these include health improvements from reduced exposure to indoor air pollution from use of fuel-efficient stoves; reduced drudgery of unpaid domestic work; time freed up from fuelwood collection and improved health from energization of health clinics, though these outcomes are mostly reported anecdotally and evidence not captured systematically.
- In some projects, women are seen to take on community leadership roles (for example, through running wood plantations in Uganda, operating micro hydro plants in Nepal), however such social empowerment results are occasional and captured anecdotally in reporting.

**Results are less visible (and documented less systematically) in transformative areas** of energy asset ownership; economic and social governance (representation in community-based governance structures) and in energy sector policy processes. For transformative and long-lasting changes through energy access interventions, women should be able to act upon the energy choices open to them, and their scope for this type of action is linked to decision-making within households. Such a shift in decision-making requires women's social and political empowerment.

The link between project outcomes and its translation into policy changes are variable. In some projects (Uganda), opportunities to mainstream gender in policy have been missed. In others (for example, RERL, Nepal), gender-responsive policy changes were effected, but not captured in the project results framework.

### 5.3.2 What strategies have worked well?

- Among the projects reviewed, the ones that had undertaken a gender assessment have a better identification of issues and reporting mechanisms on gender, which is expected. However, in some cases, the gender assessment was not undertaken sufficiently early for the project to include concrete design measures in the beginning.
- Projects have been able to encourage women to participate in training programmes and in consultations. In fact, most projects have fixed a target (around 30%) for women in training programmes. This has led to women's participation, however in many cases, the outcomes of participating in training are not captured in reporting. The fixing of the participation target (around 30%) is not usually guided by a baseline assessment.
- Women, especially through their existing groups, have been engaged in income generation activities, such as plantations as well as in group-based savings and credit activities.
- In some projects, technology and process modifications as well as additional technical and business management training helped women to participate better in engaging in the activities, for example, in Uganda, through more handy kilns.

### 5.3.3 What are the gaps?

**Most energy access projects are not setting for themselves ambitious gender objectives. The indicators in the results frameworks are mostly limited to outputs** and all the reviewed project documents had some amount of sex-disaggregation in targets, mostly one. The monitoring indicators relate mostly to women's participation in project activities especially training programmes. To what extent training activities are getting translated in greater employment, livelihoods, income earning ability, empowerment and ownership of assets is neither tracked nor reported on. Most Results frameworks do not spell out indicators that report developmental outcomes of the project on men and women, for example income/ productivity gains for men and women resulting from the project activities; improved access to and reliability of infrastructure services such as energy, drinking water etc; improved school enrolments; improved health etc.

As a result, **developmental results are not captured sufficiently in reporting.** The impact of project activities on gender equality are not reported adequately in the progress and evaluation reports. In most reports, the data and information presented does not help establish a link between the activities and developmental results. In majority of cases the results presented are unsubstantiated with data. Projects like RERL made several contributions towards increasing the gender responsiveness of national energy sector policies; however, these were not reflected in the outcome area of policy in the results framework, rather separately in the GESI section

**In reporting, gender issues highlighted mostly in Issues analysis and Gender sections,** but not followed through, in terms of specific and direct actions. Gender results need to be integrated within the main reports. In most reports, the reporting on gender issues is restricted to the specific section

on gender and not integrated within the main body of the report. The only exception to this is gender disaggregated data on participation, which is consistently present through the reports. In most PIRs, reporting on gender is restricted to within the template provided for it.

In some projects, gender actions have included capacity building for national partners around gender responsive energy policies; however, there is no information if these have translated into any substantial outcomes.

## 6. Energy Portfolio Analysis: Energy efficient transport and infrastructure solutions in urban planning

### Gender issues in urban infrastructure

Urban infrastructure including public transport is not gender neutral, and has a major impact on the quality of life of women.

- Women, especially those that juggle care and work roles, are time poor. Thus, the proximity, affordability, availability and security of transport have a high impact on their lives.
- Socio-cultural norms may shape the way women use public transport. They may face risks to their personal security utilizing public transport and hence, may need a chaperone.
- Women have different travel needs than others. And infrastructure needs to accommodate women's encumbrances such as children, elderly and groceries.
- Women tend to take public transport to a higher extent than men in many cities. Therefore, integrating a gender perspective into sustainable urban mobility systems makes them more suitable for – and therefore more likely to be adopted by – more people.

### 6.1 Context: Core gender issues in urban planning

In 30 years from now, two-thirds of the world's population is likely to live in urban areas. Ninety percent of urban growth will occur in less developed regions, such as East Asia, South Asia and sub-Saharan Africa, at a rapid pace and facing serious development challenges. Within the SDGs, a number of goals relate to transport, cities and inclusive development. In particular Goal 9 – to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; Goal 11 to make cities and human settlements inclusive, safe, resilient and sustainable. Earlier, the New Urban Agenda, a non-binding but widely recognized accord on city development; endorsed by the United Nations General Assembly and adopted in 2016 states that (UN Habitat, 2016): "In general, cities work better for heterosexual, able-bodied, men than they do for women, girls, sexual and gender minorities, and people with disabilities. Faced with challenges ranging from transportation services that prioritize commuting over care-giving, to the lack of lighting and toilets in public spaces, many women, girls, and sexual and gender minorities around the world feel inconvenienced, ill-at-ease, and unsafe in the urban environment". A recent study by ActionAid covering four Brazilian cities showed that 75 % of female respondents changed their route because they were afraid in a street without proper lighting and 70 % opt not to go out in the street in the evening because they were afraid of being harassed. Bus stops and walkways, alleys and squares, are considered the most unsafe spaces by women (Linke 2018). "There are at least six issue areas in the urban planning that combine with gender inequity to constrain, inconvenience, and even endanger women, girls, and sexual and gender minorities of all ages and abilities (World Bank 2020):

- **Access** – using services and spaces in the public realm, free from constraints and barriers
- **Mobility** – moving around the city safely, easily, and affordably
- **Safety from violence** – being free from danger in public and private spheres
- **Health and hygiene** – leading an active lifestyle that is free from health risks in the built environment

- **Climate resilience** – being able to prepare for, respond to, and cope with the immediate and long-term effects of disaster
- **Security of tenure** – accessing and owning land and housing to live, work, and build wealth and agency

UNDP’s energy-related portfolio in urban areas includes a growing number of sustainable transport projects in cities. UNDP supports national governments in the uptake of sustainable transport technologies and systems such as bus rapid transit, fuel cell bus and light rail as well as biofuels.

Gender is an important factor in how people experience and benefit from transport systems. Core gender issues in the urban transport sector are as follows:

- **Socio-cultural norms may shape the way women use public transport.** They may face risks to their personal security utilizing public transport and hence, may need a chaperone. A World Bank study showed that in Lima, women are more likely to make transport decisions based on safety, whereas men choose their mode of transport based on speed.
- Limited access to safe transportation is the greatest challenge to participation that women face in developing countries, reducing their participation probability by 15.5 percentage points (ILO, 2017).
- **Women underrepresented as employees in the transport sector.** WRI’s research in Bogota revealed that not only are women not employed as drivers in the Bus Rapid Transit system, they are not employed anywhere in the system. The two government departments primarily responsible for the transport sector in Bogota do have over half women employed, but only about a third of those women hold managerial positions (Elwell, 2020).
- **Women have different travel needs which are often considered ‘off-peak’.** They are also more likely to use public transport to visit more than one place in a trip, and take shorter and more frequent journeys. For this reason, infrastructure needs to accommodate women’s encumbrances such as children, elderly and groceries.
- **Women tend to take public transport to a higher extent than men in many cities.** Therefore, integrating a gender perspective into sustainable urban mobility systems (such as cycling, public transport and shared-mobility) makes them more suitable for – and therefore more likely to be adopted by – more people.

## 6.2 Analysis of projects working on urban planning

Sustainable cities and urban planning

- Asuncion Green City of the Americas: Pathways to Sustainability, Paraguay, 2017-2022
- De-Risking and Scaling-up Investment in Energy Efficient Building Retrofits, Armenia, 2017-23
- Decentralized Renewable Energy Solutions for Climate Security in Protracted Crisis in Yemen, 2020-2022

**PROJECT: Asuncion Green  
City of the Americas:  
Pathways to Sustainability**

**Paraguay**

**2017-2022**

**PIMS 5188**

**Overview:** The project is implemented by the Ministry of Environment and Sustainable Development, in conjunction with UNDP, the Municipality of Asunción, the Ministry of Public Works and Communications, the Technical Secretariat of Planning, the National Emergency Secretariat, the Paraguayan Network of Sustainable Cities and Guyra Paraguay. It is part of its "Integrated Sustainable Cities Approach Program", part of 23 cities in 11 countries, and takes an integrated metropolitan approach to land-use planning for Asunción and the 10 cities around it.

The Ministry of Public Works and Communications led the participatory design of a 600 km bicycle lanes network, connecting eleven cities within Asunción's metropolitan area, establishment of thirty sustainable bus shelters throughout Asunción's metropolitan area, including comfortable seats, lighting, a WiFi connection, and bins for both recyclable and organic waste.

### Gender Actions

Systematic gender assessment including a baseline done, with mapping the baseline data and identifying concrete actions and indicators

Systematic inclusion of women as a specific target group, as part of situation analysis and integrating gender systematically in all relevant outcome areas and activities, and targets for women's participations in activities.

Large number of women were included in surveys (targets for participation), and training in different areas.

A number of capacity building initiatives also undertaken to enhance the understanding on gender issues in the construction and the wider energy sector.

The project developed a Gender Action Plan (GAP) including a multi-annual matrix whose activities on women's empowerment are incorporated to the project's multi-annual work plan.

Training of municipalities in Land Use Planning, including building capacities of women and enhance their participation in planning processes.

### Reported results

- Inclusion of women in the Forums of the City (for Revaluation of the Green Spaces of the city of Asunción and Public Spaces, Water and Sanitation).
- Women's safety and needs built into the various infrastructure created including bus stations, bicycle lanes etc
- Incorporation of inclusive and safety features in the design of bus stops such as being in a well-lit area as well as having proper lighting themselves, designated places that safeguards them from harassment and violence in the streets, displaying information on the national campaign on "Zero Violence" (against women). The design itself was developed through a participatory process.
- Project being implemented in close link with the local government as well as the municipal authorities to ensure its institutionalization

**PROJECT: De-Risking and Scaling-up Investment in Energy Efficient Building Retrofits, Armenia 2017-23**

**Overview:** The technical assistance project works on building a market for energy efficient building retrofits in Armenia. It seeks to overcome lack of information and awareness about the benefits of retrofitting through the establishment of measurement and reporting, and verification measures, and the development of policy frameworks. Targeted direct beneficiaries include 30,000 people living in single-family individual buildings and 52,200 in multi-family apartment buildings, including at least 6,000 members of women-headed households; 23,000 users of large public buildings and 105,000 users of small public buildings, including at least 90,000 women.

### Gender Actions

The project conducted a gender analysis at the beginning, identifying gaps and action areas. It recommended promoting gender-balanced employment and ensuring that the user outreach, information campaigns and communication and dissemination strategy include women. A number of measures were taken to systematically operationalize the GAP:

The Gender analysis identified gender parity in employment as a gap area in the construction sector. Accordingly in 2019, a template on “Summary Table of Personnel by Gender” was inserted in the package of required bidding and reporting documents for the Project sub-contractors. A gender-oriented statement was integrated in the Request for Proposal (RFP) form. The companies are required to provide data on the composition of key personnel by gender and main professional groups (specialties).

A case study on gender equality aspects of the project was conducted to propose a simple non-sophisticated method for collecting compiling, comparing, analyzing and evaluating the gender indicators related to the Project activities.

In line with the GAP, Project staff was trained on Project’s gender-related requirements.

A Social Vulnerability Assessment survey was conducted in three apartment buildings of Yerevan to identify required financial incentives for vulnerable and women-headed families. According to the data, 43% of the surveyed families were headed by women, of which 23.5% are families of single-woman, and also 6% are women-headed families with children.

A number of policies and government actions were supported, with collaboration with the Ministry of Labor and Social Affairs and its departments dealing with gender and employment issues. Engagement was made at the highest level, with Deputy Ministers, chiefs of departments, administrators and specialists of the State Employment Service of Armenia.

### Results

- As a result of sex-disaggregated tracking of employment, the share of women in the contractor-companies employed through jobs created by the Project for EE retrofits activities, increased from 17.2% in 2018 to 20.8% in 2019. Media-companies contracted by the Project in 2019, reported about 56.2% of women’s share in total employed personnel.
- According to the 2019 Annual report, women represent over 43.1% of labor force involved in design, consulting and PR works on the Project implementation. This is higher than the average urban female employment rate in Armenia (34.5% in 2018), and higher than the female employment rate in both the construction and the design/consulting/research sectors of economy (8.6% in 2018, as per “Labor Market in Armenia, 2017-2018”).
- Women represent more than 50% employees of 2 companies that were contracted to contribute to policy de-risking activities of the Project, while both team leaders are women.
- Among project beneficiaries, 68.6% are women. In the two public buildings, they represent more than 2/3 of staff, high share of women employment in public sector in Armenia.
- Among the Project staff (including experts), in the total number of hired individuals (32) six are women (18.8%) and 20 are men (81.2%).

**PROJECT: Decentralized Renewable Energy Solutions for Climate Security in Protracted Crisis in Yemen**

**Yemen**

**2020-2022**

**Overview:** This is a project yet to be implemented, but provides a good practice example in terms of harnessing women’s power in groups to address critical environmental and health issues in a situation of vulnerable communities affected by violent conflict, displacement and unemployment.

The project is of 24 months duration and will be supported through the SDG Climate Facility project: Climate Action for Human Security, a multi-stakeholder partnership comprising League of Arab States, Arab Water Council, UNDP, UNDRR, UNEP-FI, UN-Habitat and WFP.

The lack of solid waste collection and sound disposal options in cities and towns of Yemen is a serious issue and has a direct link to health problems in nearby communities. The pilot project will demonstrate innovative off-grid waste-to-energy models that create jobs and enhance livelihoods while providing sustainable energy supply from treatment of local waste. This will be achieved through implementing affordable and sustainable Waste to Energy (WtE) model(s) to promote employment creation in crisis context as well as facilitating healthier living conditions by both removal of human health risks from uncontrolled wastes in the streets and distribution of electricity for community facilities

### **Gender Actions**

It is planned that women will play a central role in the waste management system. Women-led cooperatives and MSMEs will be supported in establishing the waste collection and sorting, as well as energy distribution organizations. They will set up and lead business opportunities such as ‘Trash for Cash’, establishing and operating the WtE plant including recycling waste into, for example fuel briquettes and other recycled products, and selling such products. Women will be included in the decision making process on where energy would best be supplied to for the benefit of communities as a whole.

An important aspect of the demonstration process is to institutionalize the systems and get a buy-in of local authorities, which will be done through supporting relevant local authorities with improved solid waste collection and management, in institutional strengthening for management of improved collection systems, developing public – private partnerships for waste management as well as engaging cooperatives to complement the waste collection services that are currently underserving the populations in the communities. Furthermore, by providing electricity derived from the waste gasification, and channeling the distribution of this electricity through community cooperatives for public sector benefit, the local authorities will benefit from this additional electricity supply.

As a first step a complete gender analysis will be undertaken in both pilot communities to identify gender power dynamics and options for employing women and consulting with women in the communities to ensure their engagement in project decision making. All relevant data collected for planning, design and monitoring purposes will be sex-disaggregated.

The project proposal includes two specific indicators, capturing women’s involvement in the process: Indicator 1.4: ratio of women to men-led MSMEs or cooperatives operational in waste collection and sorting Indicator 1.6: Ratio of women to men-led MSMEs operational in energy distribution.

## **6.3 Lessons learned and good practices**

### **6.3.1 What results have been achieved by the urban infrastructure planning projects?**

The projects reviewed showed a multiplicity of innovative approaches in designing gender-responsive transport and infrastructure interventions, including public safety measures to address harassment against women in public spaces; and gender parity in employment.

### **6.3.2 What strategies have worked well?**

- As shown in the Armenia project, encouraging gender- parity in employment among companies participating in project activities is a good starting point to demonstrate that the approach works well and does not mean a dilution in quality of work (as commonly asserted). However, it is necessary to work towards institutionalizing such systems by working closely with the government, both local and national.

- Including women in the process of planning is an important element, as they can reveal their specific needs from infrastructure projects. Care needs to be taken to ensure that local women's groups are consulted and included in the public engagement processes about new developments and transport projects.
- Harnessing the power of women's groups, as is planned in Yemen and also tried in various projects around the world, is a useful strategy to mobilize women, especially in situations where they are particularly vulnerable and hesitant to take up activities by themselves. Under an earlier initiative, Georgia developed the first gender-sensitive NAMA on low-cost water heating solutions for households, which builds on community energy cooperatives with a high involvement of women in leadership. Women also made up 40 % of the project's trainees in energy system maintenance and use (Bock et al., 2015).
- There are a number of stakeholders who can influence gender responsive urban transport. This includes the national Government which defines the overall sector, but also municipalities, as well as important stakeholders like city Mayors are key stakeholders in making transport gender responsive (GIZ SUTP 2018). Both projects in Armenia and in Paraguay were led by the city municipal corporations. Relevant departments within and also beyond the administrative boundaries of cities and administrative areas can take action to implement gender responsive urban projects, including local universities, gender and transport experts and women's groups.

### **6.3.3 What are the gaps?**

An area that did not find much attention is urban slums. A large majority of the urban population lives in slum areas where there are not many roads, those roads are not paved, and most access is through dirt walking paths. Public space in slums often does not allow free sight and includes many narrow passages and corners. Even during the day, dark and scary spaces are created, and at night usually there is no lighting. Both the low walkability and the sense of insecurity lead to many women avoiding parts of their settlements altogether. This area may be looked at more closely moving forward.

## 7. Policy advice on energy and climate change

### Gender issues in energy policies and climate action

- Climate change and its impacts affect women and men differently.
- The social and gender dimensions of climate change are increasingly being recognized: under the UNFCCC, and by climate investment funds.
- To a limited extent, gender mandates are beginning to be included in the climate actions at national level; however, there still is considerable variability in the extent and how they address gender.
- An assessment showed that 51 countries (out of 168) were actively engaging in processes to integrate gender into NDCs and climate relevant planning. **Of these, 19 have received support under the NDC Support Programme.**
- In most countries, renewable energy policies show limited gender-responsiveness. Even when they make a reference to gender, the predominant themes are women's time poverty, indoor air pollution in the context of biomass use and women's health.
- In both climate change and energy sector policies, mostly, women are characterized largely as victims or beneficiaries, to a small extent as potential stakeholders, but seldom as agents of change.

### 7.1 Context: Core gender issues and how they are mainstreamed in energy sector and climate policies

**Climate change and its impacts affect women and men differently. Gender equality and women's empowerment have been recognized as a guiding principle under the Paris Agreement**, as a result of the different gender mandates that arise from the UNFCCC's Enhanced Lima Work Program on Gender and its Action Plan and the 60 plus gender decisions agreed to under the Convention.

**In response to the global commitments, climate finance is evolving from being gender neutral to being gender responsive.** Most international institutions/ funds that finance climate initiatives have gender strategies that guide their portfolio investments. For example, the Global Environment Facility (GEF) has a Gender Equality Policy that establishes mandatory guidelines and requirements for addressing gender in GEF operations. The Green Climate Fund (GCF) has a Gender Equality Policy and a Gender Action Plan to support climate change interventions and innovations.

**To some extent, these gender mandates are beginning to find a place in the climate actions at national level.** An assessment of the recent NDC submissions undertaken for the purpose of this assignment showed considerable variability in how they address gender. A list of NDCs reviewed is included in Annex 4 and details of the assessment in Annex 6. Majority include a reference to gender, at best, in situation analyses and impacts. Some mention clean cooking. The Vietnam NDC, updated in July 2020, for example, has 14 references to women and 3 to gender, all within adaptation and cc impacts. Further, mitigation is linked to socio economic development, but there is no mention of women or gender. Similarly, the Mongolia and Thailand submissions, both in 2020, make no mention of women, girls or gender issues. On the other hand, a few of the latest submissions, Nepal and Rwanda among them, do make a strong reference to gender issues.

A wider rapid assessment undertaken by WEDO in 2020 carried out an assessment of national structures and systems in place for integrating gender into climate action, in conjunction with the updating and implementation of new NDCs (WEDO 2020). Of the 168 countries assessed,

- 56 percent were found to be engaged in some processes or plans to integrate gender or had plans across climate-relevant sectors- either actively engaging, or initiating engagement.
- Fifty-one countries were found to be actively engaging in processes to integrate gender into NDCs and climate relevant planning, policy and measures. Of these, 19 are receiving support under the NDC Support Programme. Fifteen include explicit integration and/or linkages on gender and the NDC in one or more of the reviewed policy instruments (eight supported under the NDC Support programme).
- 101 countries do not have publicly available evidence on country engagement on gender in climate and NDC processes.

### **Currently, the level of gender mainstreaming in renewable energy policy is low (UNEP**

**2020b).** A number of countries have specific green growth or renewable energy policies, roadmaps and strategies while others include renewable energy within broader energy and power policy documents. A 2017 IUCN review of 192 national energy frameworks from 137 countries showed that nearly one-third include gender considerations to some extent. Of the frameworks that do so, prominently found themes are women's time poverty, women's health and underrepresentation in employment and decision making in the energy sector. Mostly, women are characterized as potential stakeholders or beneficiaries, but seldom as agents of change (IUCN 2017).

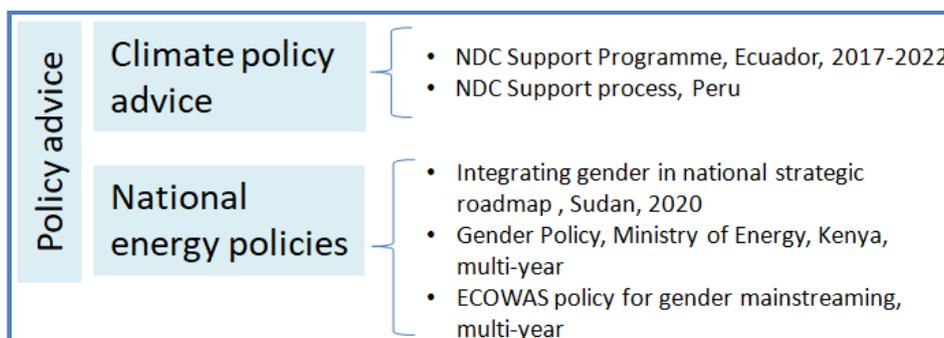
Another review that looked at 45 national energy frameworks (Prebble and Rojas, 2018) from 29 countries in sub-Saharan Africa came up with similar findings with regard to how women are portrayed:

- Mention energy, gender and time poverty (11 frameworks or 24%)
- Highlight the gender-nexus in rural areas (12 frameworks or 27%), whereas only 1 framework mentions the gender-nexus in urban areas
- Includes reference to energy, gender and education (5 frameworks or 11%)
- Examines women in energy technology and innovation (10 frameworks or 22%), but only 7 frameworks (16%) mention women as energy entrepreneurs
- Mentions women's participation in energy sector careers (6 frameworks or 13%)

Energy frameworks also disregard women's economic potential and their role in the informal economy—which, in reality, is often an important source of employment for women in developing countries. Fourteen energy frameworks identify women's ministries and organizations (or equivalents) as implementing partners, tasked with specific activities(UNEP 2020b).

## **7.2 Analysis of national level climate and energy policy development experiences**

This section includes UNDP's advice to national governments on climate policies and instruments, including support on NDCs, Nationally Appropriate Mitigation Action (NAMAs), green growth strategies; as well as on mainstreaming gender in energy sector policies, including those on renewable energy, national biomass strategy etc.



### 7.2.1 Ecuador, NDC Support Programme, 2017-2022

UNDP's support to the NDC development process in Ecuador is part of UNDP's Climate Promise, which supports over 110 countries to enhance their NDCs. Currently the Climate Promise is supporting Ecuador to carry out discrete post-NDC activities. In gender mainstreaming, the NDC Support Programme is (a) supporting the creation and implementation of the gender and climate change action plan, factoring in the participation and action of adolescents and youth; and (b) applying gender and social inclusion criteria used in the NDC prioritization process to select and cost priority measures, and deliver training.

#### *The Gender mainstreaming strategy:*

The NDC Support programme in Ecuador started in 2018 is currently in its second phase (2020-2020). The gender mainstreaming strategy is built around the following pillars:

- Incorporation of gender consideration within the political system, achieved by anchoring the process within the ministry of Environment and Water, the agency responsible for the NDC development process and by working closely with several government bodies including the National Council for Gender Equality.
- Building a multi-partner network, building on the comparative strength of each partner. The Inter-Institutional Climate Change committee, led by the Climate Change unit works closely with the National Council for Gender Equality. The partnership currently has 18 organizations and 3 universities including UN Women.
- Integration of gender considerations in methodologies and tools for NDC implementation, including gender indicators to measure progress on gender equality in terms of accessibility, participation and climate change differentiated effects. Tools are also being developed for gender sensitive public expenditure analysis.
- Additionally, a stand-alone Climate Change and Gender Action Plan was developed complementing the NDC, broadening its application in a comprehensive manner within the climate change policies by 2025.
- Widespread capacity building on gender and climate change has been undertaken, through workshops and trainings including those for local governments, in collaboration with the Ministry of Environment and the National Council for Gender Equality and allies (approximately 75 people were trained in 2018-2019).
- Updated and quality data to ensure a deep understanding of women and vulnerable people real situation, that require attention in a context of climate change.
- Dedicated budgetary allocation for gender mainstreaming actions is ensured, through GCF and GEF, which enabled the implementation of pilots to demonstrate the gender methodology in the energy (transport and electricity) sector.

- Engagement of women’s organizations has been achieved, by creating spaces for civil society participation and at the same time, building their capacities to contribute meaningfully and convincingly into high level discussions.

#### ***Achievements:***

- Ecuador’s updated NDC, submitted in 2019, embraced a gender-responsive design, and is fully aligned with the National Development Plan.
- There has been an effort to strengthen the evidence of gender differentiated issues across climate sectors through analyses—focused mainly in mitigation sectors supporting technical capacity building on mainstreaming gender throughout these sectoral plans (WEDO, 2020).
- A gender methodology and guidelines for decision-making have been developed for the NDC Implementation Plan, the MRV (Measurement, Reporting and Verification) system. Gender indicators are included for three initiatives in the electricity sector and a gender lens for climate financing. In the transport sector, a national strategy is being developed on sustainable transport with urban municipalities.
- These gender processes are getting mainstreamed into core governmental processes. For example, the Environmental law and regulations of the country include gender considerations, which are also harmonized with the national framework on human rights, which includes gender equality.

### **7.2.2 NDC Support process in Peru**

Over the years, Peru has enacted multiple laws and regulations regarding climate change with inclusion of gender responsive principles. In 2016, the Gender and Climate Change Action Plan of Peru (PAGCC-Peru) was approved, the first country in Latin America to do so. The action plan outlines specific actions to mainstream climate change and gender across eight priority sectors: forests, water resources, energy, food security, solid waste, health, education, and disaster risk management (NDC Partnership, 2019).

This has been a result of many years of support, including that from the NDC SP and from GEF, the most recent being the UNDP Project “Nationally Appropriate Mitigation Actions in the Energy Generation and End-Use Sectors”. A number of strategies have been adopted, championed by a high-level political will and strong coordination between national bodies that deal with climate change and gender equality. Another significant action has been establishing a strategic link between the National Climate Change Strategy and National Plan for Gender Equality 2012-2017, creating a stronger strategy based on national interest. By linking the PAGCC with these existing national processes, the government avoided overburdening implementing actors and created a more efficient, coordinated process.

To complement its broad cross-sectoral approach to climate change, Peru established the NDC Multi-Sectoral Working Group, made up of 13 ministries and the National Center for Strategic Planning, whose role is to implement Peru’s NDC roadmap, including integrating gender dimensions through collaboration through the engagement of gender machinery and National Gender Policy.

#### ***Nationally Appropriate Mitigation Actions in the Energy Generation and End-Use Sectors project***

In continuation with its previous work, this project worked on strengthening the capacity of the Peruvian government in the development and implementation of four NAMAs for the energy sector: 1) energy efficiency sub-sectors; 2) renewable energy resources in interconnected systems; 3) universal access to sustainable energy; and 4) electric transport. Priorities were set within the energy sector, specific NAMAs with clear and achievable mitigation results developed, and the implementation of four NAMAs in renewable energy generation, both on and off grid, piloted.

Despite the Project not having a Gender Assessment and Action Plan, the Project incorporated gender considerations in each of the four NAMAs and associated sub-sectors. By doing so, the project addressed one of the recurring challenges of “how” to incorporate a gender approach in technical areas where the correlations between environmental and social issues are not so clear. Many of the teams were able to understand these links when they began implementing actions locally.

In the last year, the Project initiated the Women's Energy School (eMujer), designed as part of the Universal Access to Sustainable Energy NAMA. The eMujer aims to train women in the use, management and installation of energy technologies, encouraging women in predominantly male sectors. The school offers training to women in their own communities. Between 2018 and 2020, Emujer trained 273 people, of which 82 percent were rural women. The initial results are promising: the interest and capability demonstrated by the women was better than expected, and it is expected that they will offer maintenance and sales services commercially, supporting the adoption of these technologies in their communities. Currently, the plan is to upscale the pilot and expand the adoption, promotion and sustainability of sustainable energy technologies.

Emujer has shown a concrete way to operationalize the national policy commitment to gender equality in a technical field. As such, the gender dimensions of adaptation are more readily understood and acted upon than mitigation (UNDP, 2016). This is an important gap (and opportunity for further work) in view of the important roles that women can play in mitigation.

### **7.2.3 Integrating gender in the national strategic roadmap for the renewable energy sector of Sudan, 2020**

In 2020, UNDP in Sudan helped the Renewable Energy Department from the Ministry of Energy and Mining to develop a national strategic roadmap of policies and measures that focuses on the potential of renewable energy to promote poverty reduction and sustainable development (UNDP Sudan, 2020). The document specifies implementation modalities for the short-term (within the next 6 months), medium-term (between 6 months and 3 years), and long-term (beyond 3 years). Table ES-1 provides an overview of the key themes and strategic priorities. Prior to developing the roadmap, an in-depth study of the energy sector was undertaken which revealed the close links between energy, poverty and gender: poor women, many in female-headed households, spend much more time than their male counterparts on energy-related activities such as firewood gathering, water fetching, and cooking. At the same time, Sudanese women are increasingly playing a stronger role in ensuring the livelihood of their families.

The strategy recognizes women as a key stakeholder group, and identifies “Increasing access to sustainable energy services for poverty reduction & women’s empowerment” as one of the three key areas of interventions, others being accelerating structural transformation of energy sector as a means of sustainable development and expanding energy service as key enabler for building resilience and sustainable recovery. It recognizes as a central strategy empowering women to make choices about energy; choices linked to issues of sustainable livelihoods, poverty alleviation, and access to income generating activities. Putting poverty alleviation and women’s empowerment at the core of a universal energy access agenda is well received by the government and is seen as a way to improve and empower the lives of millions.

The focus on women in productive use enterprises through solar energy solutions will be operationalized through a number of measures including gender inclusivity in energy investments, including solar energy transformation initiatives such as establishment of National solar PV Fund especially to support the agricultural sector, micro enterprises and public sector in the rural areas.

#### 7.2.4 Gender Policy, Ministry of Energy, Kenya, 2019

In 2019, the Ministry of Energy in Kenya adopted a Gender Policy (Ministry of Energy, Kenya, 2019). This Gender Policy seeks to provide a framework for state and non-state actors to mainstream gender in policies, programs and projects in the energy sector. It will guide the integration of gender in all segments of the Ministry through gender analysis and planning. It is intended to strengthen institutional capacities for gender mainstreaming as a basis for gender sensitive project formulation, implementation, and impact evaluation of all energy projects in Kenya.

The policy was enacted at a time when the energy sector is transitioning to the implementation of the new Energy Policy and Energy Act 2019, reinforcing the Government's strategic objective in mainstreaming gender in public institutions, policies and programs, and a commitment to gender equality, as envisaged in the Constitution of Kenya and the SDGs.

The process of mainstreaming gender in Kenya's energy policy was supported by ENERGIA, the International network on gender and sustainable energy, Kenya Electricity Generating Company (Kengen) and Practical Action. The Policy is aligned with Kenya's national and international commitments including the National Policy on Gender and Development, 2000 and the National Gender and Equality Commission Act, 2011; and with regional instruments such as Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa (Maputo Protocol), 2003 and The East African Community Gender Policy, 2018. It is also strongly designed in compliance with national laws including the 2/3rd gender rule, gender responsive work environment, compliance to access to government procurement opportunities (AGPO) and management of gender disaggregated data.

The Gender Policy in Energy, 2019 provides a framework for mainstreaming gender in energy policies, programmes and projects and commits to: (a) Strengthening institutional frameworks for the employment of women in energy; (b) Ensuring compliance with the Constitution of Kenya on gender: such as by engendering all energy policies, plans, budgets, strategies and programmes; (c) Increasing awareness on gender in the energy sector; (d) Integrating gender in programmes and in monitoring and evaluation; and (e) Promoting clean cooking solutions and environmental sustainability. For each of the outcome areas, measures have been identified to address gender imbalances and questions related to access, participation and benefits by both men and women, thereby enhancing inclusivity in access to energy services. These details are not discussed here.

Key elements of the process of development of this policy are of interest (personal communication, Mbuti, Oparaocha, AfDB 2020) in the context of UNDP's policy advice role.

**First, gender mainstreaming in energy policy is a slow process that requires persistence.** In Kenya, the process of gender mainstreaming in the energy sector has been going on since early 2000s. The Kenyan government and its energy institutions, with the support of ENERGIA, undertook a gender audit as an internal assessment to aid the institutions to improve their performances and to analyze the gender equality implications of the energy policies and development goals (IUCN, 2017). Kenya's gender audit contributed to influencing key decision makers from the Ministry of Energy and Petroleum, Kenya Power and Kenyan non-governmental organizations—Kenya Sustainable Community Development Services and Practical Action Eastern Africa—to adopt gender approaches in their planning. Additionally, the audit influenced the planning of Kenya's SEforALL Action Agenda and securing of funding from the European Union and Hivos, a Dutch development organization, to support improved cookstoves for household programmes.

**Another important factor was that the process was completely owned by the Ministry of Energy.** While the process engaged several consultants, national and international, the ownership of the process was strictly led by the government. International consultants and institutions ensured that global good practices and lessons learned could be incorporated.

### 7.2.5 ECOWAS policy for gender mainstreaming in energy access, 2017

In June 2017, the 15 countries of the Economic Community of West African States (ECOWAS) region, represented by the energy ministries, adopted the first-ever regional policy on gender-responsive energy development (Kappiah, 2015).

The goal of the ECOWAS Policy for Gender Mainstreaming in Energy Access is to address existing barriers to equal participation of women and men in expanding energy access in West Africa.

The policy came to fruition after a multi-year, multi-stakeholder effort of research, advocacy, and consensus building, all spearheaded by an institution of the Community, the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE). The success of the ECOWAS policy has led to the development of a related regional level legal instrument, monitoring protocols, institutional evolutions, as well as replication efforts in other African regions (Maduekwea, 2019). Both the Policy and the Directive are firmly inscribed within the ECOWAS regional goal of achieving universal energy access by 2030, with recognition that the West African female population has an active stake in the success of these policies and that they should be empowered to play active roles. Once the policy was adopted, it was the group of national stakeholders validating the Policy who called for the creation of a legal supporting regulation (the Directive) and this work commenced before the Policy was even adopted.

Key lessons that can be drawn from the ECOWAS process are as follows.

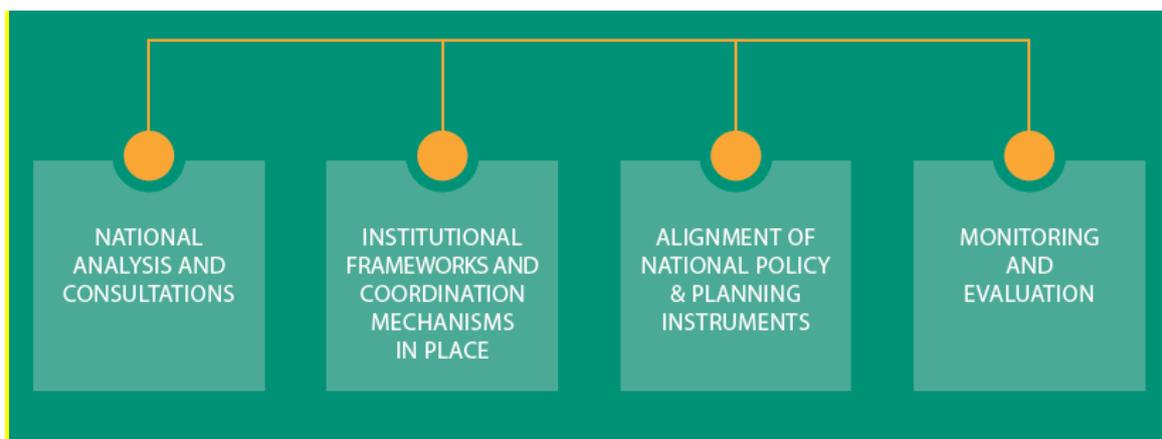
**From inception, ECREEE organized its effort around the existing interest and expertise within energy ministries.** It identified or created gender focal points within energy ministries, linking them into a transnational network, which ensured that the policy was aligned to Member States' development priorities and capabilities. This was important, as it is the energy ministries that are equipped with the necessary resources and budgets to operationalize such a policy (Greene, 2020). The energy ministries however need to be convinced about the usefulness of adopting a gender-responsive energy policy, with hard data and empirical evidence. Accordingly, ECREEE prepared detailed gender analyses of the energy sector which helped convince the energy ministries to support policy action.

**ECREEE enlisted the support of a fellow regional organization, ECOWAS Department of Gender and Social Affairs, throughout the policy development process.** This opened an avenue for technical inputs, quality control and the joint advocacy enhanced credibility with decision-makers at the regional and national levels. ECREEE and the ECOWAS Department of Gender and Social Affairs possessed different subject matter expertise, and made the strategic decision to take on distinct but complementary operational roles during the policy process—a factor for success. ECREEE operated as the day-to-day project manager, having stronger professional connections with and technical capacity to “speak and engage” effectively with energy sector stakeholders about the net gains to be achieved as a result of creating more gender-aware energy operations.

**Each and every regional consultation conducted for the policy was gender balanced.** This established a first foundation for changing practice within ECOWAS, prior to any changes wrought by the Policy itself.

## 7.3 Lessons learned and good practices

The overarching lesson that can be drawn from the various experiences in mainstreaming gender in policies is that gender inequality is more than a technical exercise of understanding gender issues across the sector; the process of institutional and behavioral change in the national institutions and key individuals is just as important.



Source: UNDP, 2016b

**Figure 3. Building blocks for gender responsive NDCs**

In terms of the process, a number of elements are seen to work well in mainstreaming gender considerations in national energy and climate policies:

- It is necessary to embed the policy/ gender recommendations in the national foundational documents, and highlight its compliance with constitutional and legal requirements. These may include, among others, the constitution, or the gender equality policy/ non-discrimination and affirmative action laws. For example, the Kenya gender and energy policy is aligned with key national laws such as the 2/3rd gender rule, the gender responsive work environment requirements, etc. Compliance with Access to Government Procurement Opportunities and Public Procurement and Asset Disposal Act, 2015 require all public entities to reserve at least 30 percent of their total procurement budget to women. The gender and energy policy mandates adherence to this instrument.
- The commitment to mainstreaming gender should be reflected at all levels, from objective definition to activity design and budgetary support for implementation. A good example of this is from Indonesia. Gender mainstreaming in climate change adaptation is through implementation of Gender Responsive Budgeting and Planning in Indonesia (UNFCCC 2016). This approach has been used since the enactment of Presidential Instruction No. 9/2000 on Gender Mainstreaming. The Presidential Instruction also applies to the sub-national level. Under the guidance of the Ministry of Home Affairs, the government agencies down to the district level are obliged to mainstream gender issues in regional development plans. In 2015, the Ministry of Women Empowerment and Child Protection developed guidelines for local governments to integrate gender and women empowerment into climate resilient plan, medium term development plan and annual budgeting.
- Strong inter-institutional coordination between national bodies that deal with climate change and gender equality supports more gender-responsive policies. In Peru, this is evidenced by the close collaboration between the Ministry of Environment and the Ministry of Women and Vulnerable Populations.
- When working with energy ministries, ensure that the assertions made are developed using sex-disaggregated data as its basis, recording women's and men's differentiated uses, needs, etc. This means that the process must necessarily be backed by a careful assessment of gender issues in the context of energy, which may be undertaken independently or embedded in a wider energy sector assessment, as was done in the case of Sudan.
- Almost all projects reported hiring a person or organization specialized in gender equality at the beginning of the project. This was a key factor for developing concrete proposals along with a framework of indicators and helped the gender component to be seen as an intrinsic

part of the project vision. In Peru, it also helped build the team's capacity, sensitivity and the will to learn how to strengthen gender equality actions.

- Engaging a wide range of actors across civil society, including academic, environmental and women's organizations helps get buy-in, to ensure gender issues on the ground are known, communicated, and subsequently included in the NDC planning process. In particular, it is necessary to promote women's active participation and voice in national decision-making processes on climate change by advocating for membership in relevant steering committees and inter-agency bodies. A 15 country study by WEDO showed that where women's groups and networks were involved in CIF project implementation, they were instrumental in design of sub-national climate change awareness-raising and capacity building actions (CIF, WEDO, 2020).
- Implement a pilot that clearly shows the relevance of gender issues within technical fields. Having a pilot, such as the one on the e-mujer, helps demonstrate and get a buy-in for practical strategies to incorporate a gender approach. This has had a positive impact not only on the political will and commitment within the energy sector, but also other sectors who want to replicate similar initiatives. In addition, this opened up new financing opportunities in Peru, as other entities are interested in financing the School, but want to see results.

## 8. Key messages

The UNDP projects and other experiences discussed in the previous sections document strategies adopted to incorporate a gender approach in energy and climate change projects and the various co-benefits these have been able to bring about. Within the UNDP energy sector portfolio, the performance and reporting on gender has improved over the years, including the process being more structured than before. However, the performance is variable, with some projects being ambitious, while others committing to the bare minimum required in terms of gender.

The more recent projects, especially those under vertical funds, with well-streamlined planning and reporting systems (gender assessment/ gender action plan/ inclusion in reporting templates and in evaluation formats) have performed better. The requirements of the environmental financing mechanisms (such as GEF and GCF) have ensured that the funded initiatives include a social and inclusion dimension, and particularly include specific gender actions in the project life cycle.

This chapter draws out the main conclusions for each of the thematic areas covered in this review.

### 8.1 On energy access projects

In all energy access projects, men and women enjoy the direct benefits of modern energy (improved lighting, use of televisions and radios, mobile phone charging, energized health clinics; access to clean cooking etc). Women are also seen to participate in some income generation activities and in project activities like training programmes. However, the outcome of participation in training is usually not captured in reporting. In some projects, women are seen to take on community leadership roles (for example, through running wood plantations in Uganda, operating micro hydro plants in Nepal), however such social empowerment results are occasional.

**Results are less visible in transformative areas** of energy asset ownership, engagement in productive use of energy and economic and social empowerment resulting from these. In some projects, gender actions have included capacity building for national partners around gender responsive energy policies; however, there is no information if these have translated into any substantial outcomes. Addressing **structural barriers to gender inequalities at scale, a key priority for the UNDP gender strategy, will require actions on wider areas** such as social and political empowerment of women; fighting against gender-based violence; addressing women's needs in vulnerable settings and gender equality in education. Few projects such as the ones in Yemen and Sudan that are focused on women's empowerment are doing so already, however not many others.

Strategies to promote women's energy entrepreneurship and their involvement in productive use of energy have not been utilized sufficiently in energy access projects. At best, women have been trained in specific skills.

There is significant scope for improvement in monitoring and tracking progress and results on gender. **The results frameworks are mostly un-ambitious on gender:** they do not include outcome level indicators **and are limited to tracking the bare, minimum output indicators on gender.** As a consequence, even when significant gender results are experienced, they not find a prominent place in reporting. Discussion on gender issues mostly finds a place in the specific gender section or as part of the situation assessment in reports, but not seen as central and contributing to core themes like economic development. Moreover, in both annual reports and the programme performance reports, gender mainstreaming results are not systematically highlighted and the gender focus is mostly minimal. Higher order results of women's empowerment and transformation in gender relations are, at best, captured anecdotally. Essentially, since gender was not integrated in the expected achievements of projects, gender results were also not highlighted sufficiently in the reporting.

## 8.2 On energy efficient transport and infrastructure solutions for urban planning projects

The projects working on urban planning show a multiplicity of innovative approaches in designing transport and infrastructure interventions that are gender responsive, including public safety measures to address harassment against women in public spaces; and gender parity in employment. Specific strategies that helped in the achievement of gender results are as follows:

- Coordinated work with local governments and municipalities helped incorporate gender perspective in urban planning including measures to improve women's security and comfort in the public infrastructure, for example, bus stops being in well lit areas and having proper lighting themselves.
- Infrastructure development must be supported by actions on changing the attitudes and behavior to promote respectful gender relations, for example, through displaying information prominently on the national campaign on "Zero Violence" (against women).
- Inclusion of women in planning forums and building their capacities to participate meaningfully.
- Promoting gender parity in the companies participating in the project through enforcing collection and reporting of sex –disaggregated employment data was a successful strategy in increasing the share of women in the contractor-companies, as seen in Armenia. This is a concrete measure that has clearly visible results and can be promoted in all UNDP projects. However, further efforts are required to institutionalize this in the national systems by working closely with the government, both local and national.
- Allying with other relevant ministries, for example, in Armenia, the project team collaborated with the Ministry of Labor and Social Affairs and its departments dealing with gender and employment issues.

## 8.3 On policy advice

UNDP's policy advice works spans across several areas, including using its specific project experience and evidence for national level policy development, as well as wider support to national climate and energy sector policies, legislation, regulation and institutions through initiatives like the NDC support Programme, CIP etc.

The NDC Support Programme, which supports countries on developing and implementing their NDCs, currently covers 17 countries to mainstream gender equality within the NDC planning and implementation process (UNDP, 2019a). The positive results of this advice are visible in several countries, including different parts of the Latin American and Caribbean region, such as Peru and Ecuador as well as some others like Rwanda and Nepal.

On the other hand, the project-policy link, or the extent to which gender mainstreaming lessons from projects are being translated to policy advice has been more variable, in the case of energy access projects. In some projects like RERL Nepal, good achievements on gender integration in national policies were made, however these do not appear in the reporting on the results framework, possibly because there were no indicators to monitor these. On the other hand, the Uganda Biomass Strategy, supported by UNDP, did not feature gender issues strongly at all. In general, the ambitions reflected in the project documents and results framework are often unnecessarily modest.

Strategies that have worked well in UNDP's policy advice work include:

- Country ownership, ensuring that the processes are led by the relevant ministries and are aligned with national priorities, around which policy buy-in and internal support can be built.

- Embedding climate/ energy sector policies, NAPAs, NAMAs and other forms of low-carbon and climate-resilient development planning, in national foundational documents on gender equality and poverty reduction strategies has been a useful strategy. Existing gender policies and plans of action (if any exist) can also be used to justify gender budgets in NDC financing.
- Strong inter-institutional coordination between national bodies that deal with climate change and gender equality supports more gender-responsive policies. At the same time, engaging other actors like the civil society, academic, environmental and women’s organizations helps to ensure that gender issues on the ground are known, communicated, and subsequently included in the policy and planning processes.
- Pilots that show the importance of gender issues and demonstrate concrete measures that can help address these build credibility for the arguments.

## 8.4 Global and regional initiatives

- UNDP’s regional and global initiatives provide an excellent platform to integrate gender at a large scale. Some of these like the UN’s Renewable Energy Offer for the Sahel integrate gender well, however, others like the DREI framework do not consider gender or social dimensions as an element of de-risking.
- Across all of these, there is a need to have common operational procedures for all such initiatives.

## 8.5 Cross-cutting concerns

**Early and in-depth gender assessment:** A need for a gender assessment is highlighted in all projects and initiatives. Such analysis can help in understanding different reasons behind gender disparities in each sector and develop targeted interventions that tackle disparities and promote gender equality.

**Risk of loss of focus on gender:** Gender equality is one of UNDP’s priorities. However, it is not always articulated strongly in the documents, especially the external-facing ones (call for proposals, Terms of reference etc). Given this, there is a risk that ‘gender focus’ could easily be lost, unless repeatedly emphasized. Further, due to the overload of work and technical responsibilities of staff, in spite of good intentions, projects face the risk of ‘evaporation’ of the gender issues during the course of the project, while the focus on technical issues is firmly retained.

**Varying understanding on gender equality:** Even though programme staff recognizes the importance of promoting gender equality, there is a difference in understanding and interpretation of concepts of gender equality within staff and between UNDP and partners. Further, since many of the activities are normative in nature (support to policy development, market development, capacity building etc), it is sometimes difficult to gauge what should be the expected outcomes of gender mainstreaming into these. Identified gaps and needs include:

- UNDP staff has access to overall guidance and planning tools on gender mainstreaming. What is less easily accessible/ available is ideas on what kinds of gender actions have been successful in the specific context of energy projects. For example, what are the various possibilities to promote gender equality in a mini-grid project, what are the specific information and data needs that must be collected during the planning stage, what specific activities to include, and what are the possible indicators to track progress on these?
- Concrete ideas/possibilities for gender focused actions in different types of energy sector projects and initiatives, especially those related to policy advice.
- Ideas on higher-order/ outcome level programming, suggestions on meaningful yet practical indicators

- Easy and easy to use tools that can be used in the specific context of energy projects that are not complex and time consuming

**Mandate of the gender task team:** The Energy team has a Gender Focal person and a Gender Task Team. Their tasks and responsibilities as members of the Gender Team are “add-ons” to their core responsibilities. Some of the projects have a gender specialist as well. What is required is more guidance as well as capacity building that provides them with tools and methods to support gender mainstreaming in programmes.

## 9. Recommendations and a framework for further strengthening the gender results in the energy portfolio

UNDP has adopted a gender equality strategy, emphasizing gender equality and women’s empowerment in all its thematic areas, including energy. The review findings suggest that while the energy sector portfolio makes good contributions to the gender equality objectives, the efforts are not uniform in strength across the spectrum of projects and activities. There is room for making some of the operational mechanisms more robust to ensure compliance and a meaningful integration of gender perspectives. At the same time, the energy team would benefit from practical tools and ideas applicable for the activities they are responsible for. Simultaneously, efforts should be made to build a common understanding within the governments and other partners. Mechanisms like the NDC SP as well as the implementation projects provide an excellent avenue for demonstrating gender responsive actions on the ground, complemented with policy advice which can help translate these demonstrated actions into national policies.

This section makes recommendations that are organized into three main blocks:

- At the **strategic level**, the focus/ rationale of mainstreaming gender in energy sector should be to empower women and to maximize the coherence between UNDP’s gender equality mandate and energy sector priorities.
- Measures to **strengthen impacts** in existing thematic areas.
- Recommendations on **new areas of work**, including a palette of topical, cutting edge issues/ areas in which UNDP does not have a strong presence currently, but are suggested as thematic areas to start engaging in.

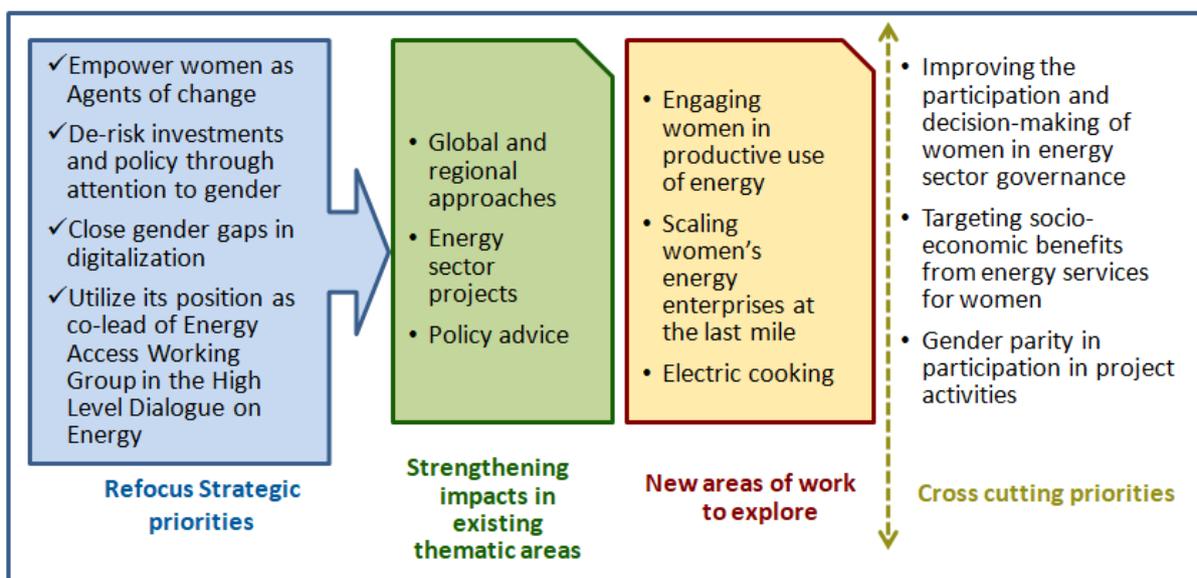


Figure 4. Strategic framework for embedding gender in UNDP’s energy work

## 9.1 Strategic framework for embedding gender into UNDP's energy sector work

**Focus of gender in energy sector:** Currently, the central focus of UNDP's energy interventions is to enable or catalyze inclusive development. In this context, gender equality and women's empowerment aims at closing gender gaps and improving their access to market, ownership and control of economic assets. It is suggested that in addition to this, the following two arguments/objectives be made central to the positioning of gender mainstreaming in the energy portfolio.

- **Gender mainstreaming as a policy and investment de-risking measure.** Experience shows that "social de-risking" or enhancing the community/ household level acceptance of interventions like energy efficiency measures, clean cooking etc is critical to sustainability of energy investments. Women, individually and through their networks, are uniquely positioned to enhance the acceptance of energy technologies, especially at the last mile.
- Women as agents of change, collaborators and innovators in the global energy transition. This requires enhancing women's participation and role in energy sector decision-making processes by (i) promoting women's equal engagement and voice in energy sector policy and planning and decision-making bodies; (ii) supporting women's engagement in energy value chains as employees, business owners and entrepreneurs, (iii) partnerships and alliances with organizations representing women.

**Energy Access Technical Working Group of the High-level Dialogue on Energy:** UNDP is one of the co-leads of the Energy Access Technical Working group, and well positioned to drive a gender-responsive agenda. Possible actions include:

- Offer to set up a task force on the subject within the Access group (possibly in partnership with ENERGIA)
- Prepare a forward-looking flagship publication on gender and energy in collaboration with the Working group on enabling SDGs, offer to dominated periodic round-tables on gender (and social) related issues, such as women's entrepreneurship, women in productive use of energy, employment etc.
- Offer to host a helpdesk (possibly in collaboration with ENERGIA) to arrange advisory services on gender and energy, this could also be aligned with one of the global initiatives of UNDP
- For a sample of its partner countries (most responsive ones), offer to demonstrate on the ground a working model of a national level gender-responsive energy access programmes

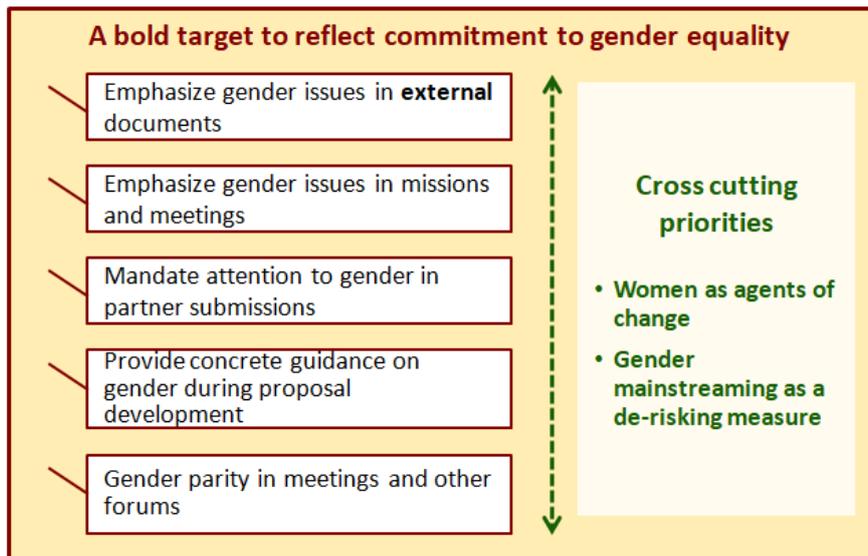
**All energy interventions should try to address the gender gap in digitalization.** Currently, 200 million more men than women have access to the Internet, and women are 21 percent less likely to own a mobile phone. Bridging the digital divide is likely to provide gains in multiple areas, including political empowerment, access to services, education, health and mitigating violence against women, and coping with COVID 19. For the projects, this will requires complementing access to reliable energy with gender-responsive digital literacy, possible access to finance to obtain devices and so on.

**On the whole, there is a need to raise the level of ambition for gender results in UNDP projects and activities. In most projects, the current level of expectation from gender actions is modest.** It is recommended that projects must aim and plan for high-order goals, aligned with SDGs on gender equality (Goal 5) and efforts to address inequalities (Goal 10). This will mean going beyond the present level of ambitions and committing to achieving results like economic and social empowerment of women, women's management and ownership for energy assets, improved access to and reliability of infrastructure services such as energy, drinking water etc; improved school enrolments; improved health etc.

## 9.2 Strengthen impacts in existing thematic areas

### 9.2.1 Actions to mainstreaming gender in global and regional approaches

In view of the emerging gender mandate and existing opportunities, especially at the national level, the regional and global initiatives of UNDP are very well positioned to mainstream gender.



In all its global and regional approaches, UNDP should adopt a bold target to reflect the commitment to gender, for example, *75% of all initiatives will make a substantial contribution to gender equality and women's empowerment by 2025 (gender rating 2 or 3).*

At the same time, gender should be mainstreamed in all initiatives by making the following adjustments to the operational procedures and applying them to all new initiatives.

- All key documents such as concept notes, strategy documents, call for proposals, especially those which have an interface with clients<sup>4</sup>, should include a commitment to and clear guidance on mainstreaming gender. This requires more than including a separate gender action plan; gender considerations must be included in the main documents prominently, and included in the results framework.
- Emphasize gender issues in missions and meetings.
  - Highlight the importance of the issue during missions, at consultations and workshops, in order to build awareness and buy-in.
  - In mission discussions, engage, where possible, governmental agencies/ministries/focal persons who work on gender issues.
- Partners must be required to submit applications/ proposals that contain or plan gender assessments and project-level gender action plans, along with dedicated budgets. There may be exceptional cases in which the project has no relevant gender dimension. Further each project should have at least a few outcome indicators on gender.
- Provide concrete guidance on gender during proposal preparation. For institutions submitting proposals/ applications, UNDP should provide concrete guidance on designing gender responsive interventions, along with concrete examples of entry points (for example, in urban

<sup>4</sup>Clients, in this context, refers to external stakeholder such as national governments, partner institutions and other organizations

transport, clean cooking, powering healthcare), along with resources and contacts in countries/projects that have done so already. Some examples include:

- Supporting productive uses of energy, women's energy-based business and engagement in RE supply chain and their employment in the energy sector. Special attention should be paid to sectors in which women are working such as food and agro processing.
- A regulatory framework for renewable energy sector should include regulatory aspects of clean cooking (setting performance standards, designing financial mechanisms such as subsidies, creating M&E framework). Attention should be paid to specific barriers that women face in accessing renewable energy technologies.
- Electrification programmes should support energy provision for social infrastructure such as health clinics, water pumping, street lighting and schools and those that help women's workload and drudgery.
- Gender parity in various forums
  - Bodies that are set up for the project (e.g. steering committees) should include women and/or women's representatives, and this should be mentioned explicitly in the ToR, so that both the partner and the consultant are aware and agree to.
  - Engage organizations working on gender issues and encourage gender balance in participation and the participation of organizations that represent women.

### **9.2.2 Actions to strengthen the impact of energy sector projects<sup>5</sup>**

What should UNDP try to achieve through its energy sector work? In the energy sector, it is timely to change the narrative on women's role and highlight the role of women as agents of change, collaborators and innovators in the global energy transition. In order to do so, the following entry points may be utilized:

- Engage women in planning and design of infrastructure and urban transport projects (such as e-vehicles).
- Target women as a specific target group by recognizing their specific needs that modern energy can meet, for example, clean cooking, labour saving appliances, water pumping, businesses and enterprises.
- Prioritize community applications on health, water availability, safety and education.
- Invest in women's skills and capacity through training programmes, access to knowledge and information, including ICTs, and helping them to translate the acquired skills into livelihoods.
- Promote gender parity in employment, starting with organizations participating in the project and more broadly in energy sector organizations.
- Economically empower women by opening opportunities for energy-based livelihoods, including those in energy value chains and in utilizing productive use of energy interventions
- Encourage women to manage as well as own energy assets, such as micro hydro power plants and other equipment like agro-processing units, mills, etc.
- Include mitigation of gender-based vulnerabilities in COVID-19 energy response plans, including powering communication appliances such as solar radios and mobile phone chargers; salvage operations of women energy enterprises & productive use of energy; clean

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<sup>5</sup>This section includes recommendations for both energy access and urban energy projects.

cooking & fast-track electricity access for healthcare facilities in government pandemic emergency response plans

**All projects must be mandated to include atleast the following basic elements of gender equality.**

The planning and incorporation of these elements can be undertaken by the core project team, without necessarily hiring a full time gender consultant. Instead, for specific tasks, consultants may be hired. All staff members should have capacities to plan and execute these.

- Targets for women’s participation and/or access to project benefits (e.g., to solar powered education centres, formation of beneficiary groups such as water user groups)
- Equal opportunities to male and female community members to participate in project activities and benefit from skill development, employment, and/or other opportunities
- Mechanisms to ensure women’s equal representation in decision-making processes and structures related to the design, operation, and maintenance of infrastructure
- Development of urban/rural transportation services taking into account the needs of both male and female community members
- In physical infrastructure (rural and urban), inclusion of gender-sensitive features (e.g. safe public buildings and facilities such as train stations and bus terminals, separate compartments on public transport)
- All projects must include gender analysis and/or consultation with women’s groups during preparation.

**Especially in projects which have a significant gender dimension, engage a gender consultant,** starting right from the design stage. Further, it is useful to ensure that (a) gender knowledge and experience is a criterion for selecting project staff; (b) project staff is briefed adequately on relevant gender issues and be provided training on gender mainstreaming; (c) ensuring results on gender equality is assigned as a specific responsibility. This could be through a gender focal point position or by integrating into the job descriptions of key staff, (d) there is gender parity of the staff members.

During the design stage, important activities for this person include:

- Work with the Monitoring and Evaluation specialist, project beneficiaries and project team members to incorporate the findings of gender analysis into project planning and implementation strategies.
- Develop a plan for capacity building of staff on gender, if necessary, and prepare necessary documentation and materials needed for gender training.

**Engage with local governments,** such as urban municipalities and rural governance systems and in order to ensure that the interventions are appropriate and contextualized, to get a buy-in and leverage their efforts and to maximize the chances of replication and scaling up.

**Build in a policy advice element in all projects,** ensuring that the on-the-ground experience in energy access, and energy efficient urban infrastructure interventions are translated into national policies in the energy sector, and more broadly in the climate actions. Embedding gender focused actions in national gender equality mandates, clear inter-institutional coordination, widespread capacity building, engagement of civil society and women’s organizations, involving gender specialists through implementation, pilots to demonstrate the workability of a gender approach in technical sectors, are key elements to be incorporated in all energy sector and climate action advice.

### 9.2.3 Actions to strengthen policy advice

Given that the Paris Rulebook calls for NDC planning and review processes to be gender-responsive and the new, streamlined requirements of climate funding, it is expected that the second generation of NDCs are more specific in their text as to the integration of gender equality in climate action, addressing gaps in the first round (due to an original lack of time, coordination, data or analyses), and also aligning NDC targets and actions with SDGs.

**Moving forward, UNDP's NDC Support programme remains the best channel to integrate gender into national climate policies.** As countries prepare to submit enhanced or revised NDCs, this provides a renewed opportunity for integration of gender-responsive approaches in new NDCs.

- In providing advice on gender mainstreaming energy sector and in climate change actions,
  - Plan for an engagement of at least 5-7 years in any country on policy advice.
  - Any policy development process must necessarily be led and owned by the national governments, with external agencies like UNDP in a support role.
  - Allocate funding to build capacity and raise widespread awareness on the link between gender and climate change, especially on the seemingly technical sectors such as construction, transport.
  - Within projects and advice, engage gender specialists in projects, especially when considering new programs, and dedicate separate budgets for gender-related activities.
  - Engage with national partners such as Ministries of Gender/Women's Affairs to increase their understanding of energy technologies and the benefits these bring to women and girls in order to contribute substantively to policymaking discussions.
  - Develop as allies and build the capacities of civil society and women's organizations on gender in energy.
- As part of projects and policy advice, invest in capacity building on gender for national level stakeholders
  - Highlight gender issues specific to different sections such as indigenous peoples and ethnic communities.
  - Use energy projects to demonstrate gender-responsive approaches in energy sector to increase the understanding of policy makers in key energy and environment sector ministries
  - Support for inclusive investment planning for national governments
  - Make available readily accessible and easy-to-use guidance on project design elements, budgets, results, monitoring, and impact indications.
- As governments respond to the pandemic with economic stimulus packages, UNDP should assist in the process. In the context of gender and energy, priority areas include the following:
  - Ensure energy access and clean cooking solutions are part of the crucial blocks needed for building a sustainable future for poor rural and peri-urban families. Efforts must be made to prevent people using modern cooking fuels like LPG or electricity falling back on cooking on open fires and using solid fuels such as firewood, as result of lack of income and work.
  - In the post-COVID context, all UNDP access to appliances will have a bearing on women's ability to start home-based businesses that may be more important in the new normal. In homes, energy services will be required to power lighting in work and study areas, phone and internet access to maintain communications, including online home schooling and access to safety information during the pandemic (ENERGIA 2020).

## 9.3 Seize opportunities in new areas of work

Women as a key target group in productive use of energy interventions	Scaling up of women's energy enterprises at the last mile	Engage in electric cooking interventions in developing countries
<ul style="list-style-type: none"> <li>• Include additional measures in ongoing and new PUE projects, identifying gender-specific gaps in the baseline assessments in the area of women's livelihoods, and targeted measure to address these.</li> <li>• Consciously map out entry points within energy access activities with linkages to occupations where women predominate</li> </ul>	<p>Build in women's entrepreneurship in projects:</p> <ul style="list-style-type: none"> <li>• Work with private sector to create opportunities for women in value chains</li> <li>• Test new approaches to engage with women</li> <li>• Facilitate access to finance</li> <li>• Test and promote the use of digital platforms</li> </ul> <p>Utilize this experience in national level policy making</p>	<ul style="list-style-type: none"> <li>• Create an enabling environment that crosses the division between the electrification and clean cooking sectors</li> <li>• Creating spaces for dialogue between stakeholders in the clean cooking and electrification sectors,</li> <li>• Support utilities and mini-grid developers to pilot, and scale up e-Cooking services</li> </ul>

### 9.3.1 Women as a key target group in productive use of energy interventions

#### *Rationale for UNDP engagement in the area:*

Productive use interventions tend to benefit men more than women, unless special efforts are made to include women. There are several reasons for this: since women and men occupy different roles in the economy, they engage in different types of productive activities, are typically informal and less mechanized and use different energy services. They also have different access to enablers such as finance, markets, infrastructure and skills. Research in Ghana, Tanzania and Myanmar showed clear evidence of women's businesses mostly relying more on process heat and less on electricity. On the other hand, men dominate more mechanized and electricity intensive sectors, owning more of the larger and formal businesses (ENERGIA, 2019). Women also have less access to other services needed for running businesses, such as access to credit, technology, linkage with markets and associations etc. In addition, underlying social norms constrain the performance of women-owned enterprises. In addition, governments and international development partners have so far been targeting PUE interventions on electricity related projects, with relatively little investment in efficient process heat technologies, where women predominate. As a result, it cannot be assumed that both men and women will benefit from productive use interventions at an equal footing.

#### *Strategic fit, UNDP's value addition and entry points within UNDP projects:*

Productive use is an important component in UNDP's energy access programmes, especially the recent mini-grid projects. UNDP should increase its focus on supporting women to benefit from its productive use of energy interventions. A greater commitment to engage women in productive use of energy interventions will require additional measures, for example, identifying gender-specific gaps in the baseline assessments in the area of women's livelihoods, and targeted measure to address these, including for example, linking them to finance, markets, building their business, technology as well as agency and leadership skills, providing them with business mentors; strengthening access to markets, creating linkages and access to financial products and services, enhancing extension or business development services, and possibly addressing discriminatory land laws etc, which may be more than what the typical package of services in an energy access project

contains. Projects will also need to consciously map out entry points within energy access activities with linkages to occupations where women predominate such as agro-processing, grain milling, refrigeration, horticulture, poultry, tailoring, beverage and eateries/restaurants that use electricity, sound systems and refrigeration, as well as for computer centres/ charging mobile phones etc.

#### ***Key influencers and possible partnerships:***

Partnerships will include engagement with in-country agricultural associations, micro-business support entities, non-governmental organizations, women’s associations, private sector firms.

### **9.3.2 Scaling up of women’s energy enterprises at the last mile**

#### ***Rationale for UNDP engagement in the area:***

Majority of the 1 billion-plus people who are without access to modern energy live in hard to reach, “last-mile” communities — off-grid, geographically remote, and low-income and are unlikely to be reached by business-as-usual approaches. Research shows that in off-grid technologies, women can be as good sales agents as men through leveraging their social networks. By doing so, women can help last mile distributors in building markets, bring down the costs of last-mile distribution and help reach scale and profitability. Since the last few years, ENERGIA and partnerships like WPower and the Clean Cooking Alliance have started promoting women as entrepreneurs selling renewable energy technologies, especially in rural, last-mile communities.

While a number of organizations are beginning to focus on the challenge of reaching the last mile, including the World Bank and the African Development Bank (AfDB), as well as national governments including Rwanda, Kenya, women’s entrepreneurship is yet to be viewed as a “mainstream” strategy for last-mile energy access and the opportunity is far from being realized (Dutta, 2018). Limited focus on the women’s segment has led to gender gaps remaining unaddressed in the off-grid sector. Many of the entrepreneurs grapple with slow growth, facing multiple challenges: women still face stronger collateral constraints, low financial literacy, socio cultural normative barriers and limited tailored products and services. Literature on the subject is scant and in particular, there are gaps in understanding the precise needs of women’s entrepreneurs at different stage of growth and what kind of programmatic support can accelerate the growth and sustainability of these enterprises, and help upscale such efforts. To support this emerging area of focus and to ensure that time and resources spent are both effective and sustainable.

#### ***Strategic fit, UNDP’s value addition and entry points within UNDP projects:***

For UNDP, targeted work in this area could include responding to some of these specific needs, as well as a stronger focus on women’s entrepreneurship through its projects and utilizing this experience in building this into national level policy making. Tackling this area effectively will need a number of actions possibly beyond the existing remit of energy access projects, including working with the private sector to create opportunities for women as entrepreneurs and sales agents, testing new approaches to engage with women, working with financial institutions, enhancing the credit-worthiness of women entrepreneurs, testing and promoting the use of digital payments. Further, with COVID-19, there are additional business needs as many entrepreneurs as well as their customers cannot go to markets, and often cannot access raw materials or products. As a consequence, it may be difficult to repay business loans, profits are lower and may be diverted to family emergencies rather than be re-invested, and businesses are closing (ENERGIA 2020).

Sample activities that will need to be included in energy access projects to support women’s entrepreneurship.

- Develop and rollout online entrepreneurship and financial literacy training programme for women
- Provide capacity building on leadership, advocacy, access to finance, ICT etc.

- Provide continued mentoring support through coaching and periodic meetings
- Enable networking to support peer to peer learning, fostering local leadership
- Establish/strengthen an advocacy platform for women entrepreneurs to educate policy makers about the economic contributions that women-owned businesses can make to the region.

***Key influencers and possible partners:***

ENERGIA, Global Distributor Collective (GDC), UNDP’s EmPower programme, Acumen (to design/pilot new financing mechanisms)

### **9.3.3 Electric cooking**

***Rationale for UNDP engagement in the area:***

2.8 billion people globally are still cooking with solid biomass, however, just 789 million are now without access to electricity (ESMAP 2020). This implies that approximately 2 billion people now have access to some form of electricity, but continue to cook with biomass (ESMAP 2020). The strides made in electrification provide a real opportunity for electricity-enabled cooking (eCooking), including those in remote locations through off-grid technologies. So far, the interventions on electric modern energy cooking services have focused around technological improvements. The uptake of eCooking will depend substantially on the willingness of the private sector— in particular solar companies, mini-grid operators and utilities—to adopt the technology as part of the suite of services it offers its customers. At the same time, research has shown that gender issues such as value of women’s time, gendered access to information, intra-household negotiation and gender norms around cooking are factors that can influence the adoption and use of electric cooking (ENERGIA 2019).

New investments are being made in e-cooking. In September 2019, the World Bank launched the \$500 million Clean Cooking Fund; WHO, UN DESA, the UNDP and the World Bank launched the Health and Energy Platform of Action (HEPA), and recently, the African Development Bank’s Board of Directors has approved a \$5 million investment in the SPARK+ Africa Fund to deliver clean cooking solutions to over two million households across Africa. The European Commission would contribute an additional €10 million. SPARK+ Africa is an impact investment fund launched by Enabling Capital and the Clean Cooking Alliance to channel debt and equity financing to enterprises that manufacture, distribute and finance clean cooking solutions across Sub-Saharan Africa. The Fund targets a capitalization of \$50 to \$70 million (Obi, 2020). Work under the Modern Energy Cooking Services (MECS) program and by Efficiency for Access, CLASP, the Clean Cooking Alliance and others are pushing a new generation of products and business models.

New potentially transformative solutions includes cooking with both alternating current (AC) electricity and battery-supported direct current (DC) devices that can enable cooking on weak grids, mini-grids, and stand-alone systems. Rapidly falling prices of batteries and solar PV are opening up new opportunities for integrating energy-efficient eCooking into solar-hybrid mini-grids. As a result, mini-grid developers, solar home system companies, and utilities are starting to take a closer look at eCooking. With these new developments, the sector is likely to gain traction.

***Strategic fit, UNDP’s value addition and entry points within UNDP projects:***

According to the Signature Solutions (UNDP, 2018b), UNDP will adopt a dual track approach to clean cooking: promote a transition to Liquefied Petroleum Gas (LPG) based systems in urban areas; and assist countries to introduce cleaner and more efficiently burning cookstoves. The 2020 ESMAP report on the subject identifies a number of actions needed to kick-start the sector (ESMAP 2020). UNDP is well positioned to lead several of these:

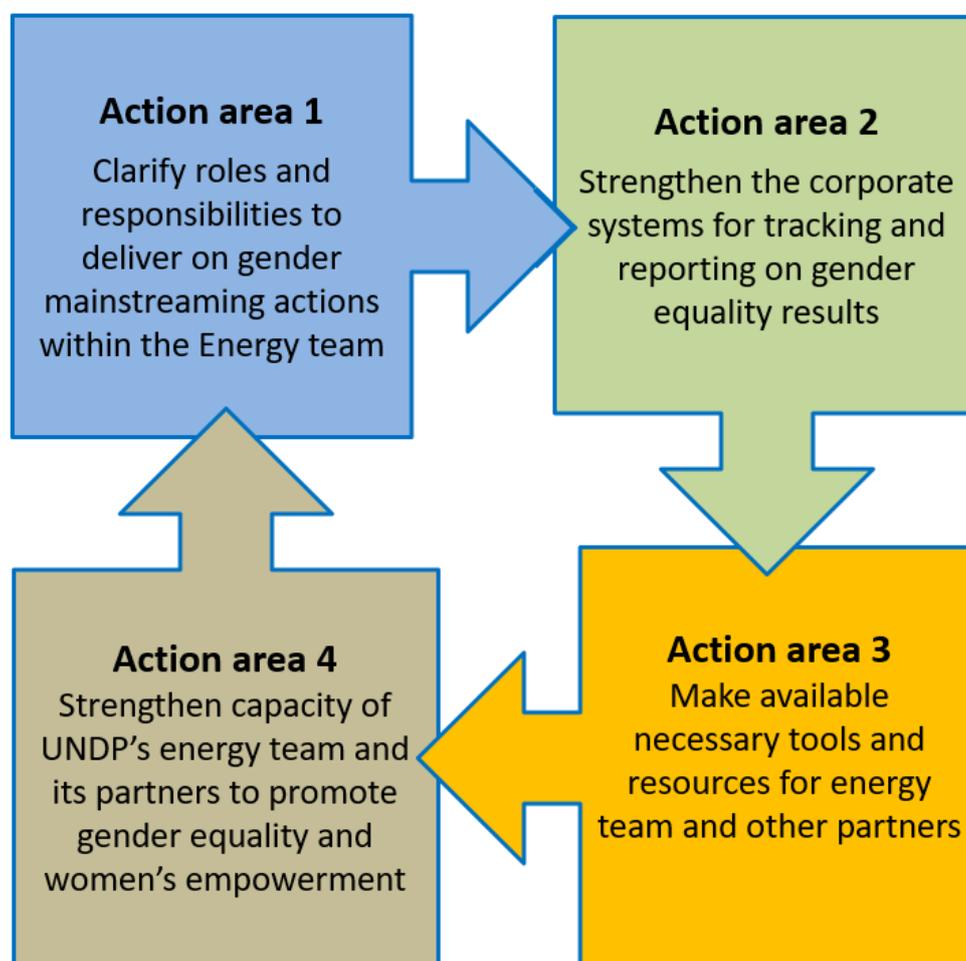
- Support policy makers to create an enabling environment that crosses the division between the electrification and clean cooking sectors, including creating spaces for dialogue between stakeholders in the clean cooking and electrification sectors;
- Informing decision makers, private sector players, and consumers of emerging opportunities; explore, through its ongoing and new projects, especially those on mini-grids, techno-economic models for supporting eCooking devices in rural areas;
- Support utilities and mini-grid developers to pilot, and scale up eCooking services that are compatible with their existing business models;
- Empower women entrepreneurs to lead the development and dissemination of innovative eCooking solutions;
- Bridge initial cost–viability gaps in new markets by combining financing instruments, including grants, social impact investment and results-based financing tied to environmental, gender equity, and health outcomes.

***Key influencers:***

Utilities, mini-grid and off-grid companies; Power for All; MECS; Clean Cooking Alliance

## 10. Moving forward: A framework for implementation

The operationalization of the recommendations made can be delivered through a set of actions in four priority action areas:



### 10.1 Action area 1: Clarify roles and responsibilities to deliver on gender mainstreaming actions within the Energy team

Although the overall responsibility for gender mainstreaming is recognized as an institutional responsibility, it is necessary to allocate specific responsibilities for accountability for performance in this area. The final responsibility and accountability for gender mainstreaming should rest with the heads of energy team, who should take the strategic decisions and develop the necessary competencies within the team, which the gender focal points/ team operationalize. The role of gender focal points should be that of a facilitator, while the project/ activity leads will be accountable for the implementation of gender mainstreaming in their activities.

Suggested specific responsibilities are as follows:

Heads, Energy Team (global and country level)	<ul style="list-style-type: none"> <li>• Ensure that gender is reflected strongly at the core of the energy strategy, with women positioned as change makers</li> <li>• Ensure the incorporation of a strong gender angle in all new programming ( projects, global and regional initiatives)</li> <li>• Ensure there are spaces for sharing best practices and lessons learned on gender with the whole team</li> <li>• Formalize partnerships and collaborations on gender</li> </ul>
Project/ Initiative Leads	<ul style="list-style-type: none"> <li>• Ensuring gender assessment, capacity building, monitoring and reporting on gender, and budgeting for gender activities in their projects</li> </ul>
Gender focal point/gender task team	<p>The gender task team will act as a resource team/ facilitator on gender mainstreaming for the energy team. The gender focal point is the coordinator of this team and the contact point. Their (shared) responsibilities include:</p> <ul style="list-style-type: none"> <li>• Consult the management regarding the development of the gender mainstreaming strategy and the implementation of all necessary steps</li> <li>• Receive requests for information on gender-energy and respond. Depending on the type of request (analysis of documents, participation in webinar, information provision, or other), they may respond directly, locate necessary resources and share, or liaise with the UNDP Gender Team for further support.</li> <li>• Plan for and execute a time bound plan for gender capacity building of the energy team, including pooling together necessary resources and material required</li> <li>• Compile a list of relevant gender projects that could require funds for up-scaling and share with Heads of Energy and other partners</li> <li>• Coordinate exploratory research in new areas of work in gender and energy/ potential collaborations, involving other persons from the Energy team</li> <li>• Ensure the lessons related to the energy portfolio are analyzed and made available to the whole energy team (together with the Communications team)</li> <li>• Compile a list of relevant gender consultants that can support projects, who have capacities in specific domains such as energy, construction, transport etc and can be attached to a project/ activity</li> <li>• Develop and implement a yearly work programme for the gender-energy task team</li> <li>• Report about the progress towards gender equality in the institution on a regular basis (according to the monitoring moments established in the Plan)</li> </ul>
Gender team	<p>Support the gender task team within the energy team, as and when required to:</p> <ul style="list-style-type: none"> <li>• Identify resources and resource persons for specific sectors, through their contact pools</li> <li>• Assist the gender task team with global gender events and platforms for dissemination of good practices as well as connect with other practitioners</li> <li>• Bring in lessons from other sectors for the energy team</li> </ul>
Communications team	<ul style="list-style-type: none"> <li>• Organize periodic knowledge and exchange sessions on gender and energy, involving persons from within the energy teams and external resource persons</li> <li>• Support the gender task team to develop resource material including blogs, fact-sheets, briefing notes to share experiences and lessons learned on vertical fund energy projects.</li> <li>• Inform the gender task force of relevant forum where information could be shared such as COPs, International Women’s day, etc</li> <li>• Share latest development and material on gender-energy with the team on a regular basis</li> <li>• Review and provide comments to communication pieces to be published (with UNDP gender team)</li> </ul>

### **Functioning of the Gender task team**

- The gender focal point is the coordinator of this team and the contact point for the Energy team.
- The gender focal point and the gender task team should be selected for a term of two years, and the positions rotated after that.
- The gender task team should include both men and women. This group should contain members represent the most important units/ types of work within the Energy team, possibly one representative from a project and one from a broader regional or global activity.
- The gender task team's authority/ mandate should be clarified to all concerned, including the energy team members.
- The members should have a guaranteed allocation of her/his time to the tasks mentioned above. Approximately 20-30% of her/his time is likely to be needed for gender issues.
- Their responsibilities should be reflected in their ToRs and be part of performance review.
- The gender task team members may need training to strengthen her/his capabilities.

## **10.2 Action area 2: Strengthen the corporate systems for goal-setting, tracking and reporting on gender equality results**

### **Ensure essential gender mainstreaming elements in project design and implementation.**

These elements, as documented in a number of documents (for example, UNDP 2013, UNDP, 2015, ENERGIA, 2012) include: (a) a robust gender assessment; (b) Ensure that consultations at all levels and throughout the project are gender responsive; (c) Develop and implement a project specific gender strategy or a gender action plan; (d) Ensure gender balance in the project implementation team and engage women's group as project partners; (e) Monitor results through a gender responsive results framework, linking findings of gender assessment to project outcomes, outputs and activities; (f) Having a gender budget from the beginning of a project or ensuring that it is allocated later, is necessary; and (g) Building institutional capacity for gender mainstreaming, within the project teams in the national partner organizations. Of these, the elements that came up repeatedly: gender analysis; gender goal/ target setting; monitoring and reporting, are explained below.

### **Conduct gender analysis in all activities.**

Gender analysis is the cornerstone of gender mainstreaming and among the most useful tool available to organizations seeking to promote equality. All projects/programmes should be informed by a gender analysis. A gender analysis examines the differences in women's and men's roles and responsibilities, and access to and control over resources, services and decision-making, including those that lead to social and economic inequalities. Identifying these differences helps understand why the differences exist and reveal entry points for designing programmes that can successfully address gender disparities and remove or reduce these obstacles to gender equality. The project-level gender action plan, based on the gender analysis, will:

- Collect baseline data and determine how the project can respond to the needs and strategic interests of women and men in view of the specific climate change issue to be addressed;
- Conduct Gender-equitable and inclusive stakeholder engagement and consultations
- Identify the drivers of change and the gender dynamics that will influence the achievement of project goals;
- Identify and design the specific gender elements to be included in the project activities;
- Estimate the implementation budgets;

- Include appropriate and measurable output, outcome and impact indicators to measure gender equality results

### **Support projects to aim for ambitious gender objectives.**

As indicated in previous sections, most energy access projects have pegged the gender ambitions at a low level, at the bare minimum threshold. There does not seem to be a specific reason for this, except the overload of work and multiple technical responsibilities of project staff and an absence of concrete, well documented examples from other projects, from UNDP and others. As a result, in spite of good intentions, projects face the risk of settling for the bare minimum required, and an ‘evaporation’ of gender issues during the course of the project.

The gender analysis will provide entry points for gender activities. What would be useful for project staff to have access to real life examples of projects which have set for themselves ambitious objectives and implemented activities to achieve them. In stating gender objectives, outline what changes the project will/can bring about for women and men and describe the target groups in terms of gender.

Key questions to consider when mainstreaming gender in the formulation of objectives and outcomes:

- Does the project need to have a gender dimension? Does the objective address the needs and concerns of both women and men?
- In what ways can it contribute to the overall goal of gender equality?
- Will this objective bring about improvements for women as well as men?
- Who participated in choosing the objectives from the variety of needs to be addressed?

There is a need to check whether there is gender balance within the target beneficiary group. There may be projects which specifically target men or women in order to enhance gender equality. If this is the case, this should be clearly explained.

Most countries have a clear framework and goals towards gender equality, articulated through national policy statements. It is useful to establish a clear link with project strategy, national policies and UNDP mandates. Grounding a gender activity in national policy gives it legitimacy and oftentimes a much-needed impetus for engaging national level partners in the activity.

### **Strengthen monitoring of and reporting on gender aspects in projects.**

Capturing gender in projects requires the following key elements:

- Disaggregation of relevant data by sex. The first and simplest approach is to disaggregate participation data by sex (number of men and women attending a training programme/ a meeting, for example). However, sex disaggregated data (for example, x percent women’s attendance at a meeting) alone are insufficient indicators for gender equality. The ‘story behind’ that explains the reason for the difference in women’s and men’s participation and what the project has done to correct the imbalance needs to be reported as well
- The results framework that measures progress towards gender equality objectives through gender-specific indicators, including those of economic and social empowerment
- Inclusion of sex-disaggregated data and status of gender performance indicators in progress, completion and evaluation reports

### **Track the gender responsiveness of the energy portfolio as a whole.**

Possible indicators that may be integrated at the portfolio level are as follows (adapted from GCF Gender Action Plan 2020-2023):

- Number of projects/ funding proposals that include promoting gender equality in climate action as a primary objective
- Number of projects where women and men report improvements in their quality of life, economic and social empowerment
- Number of projects that contain strategies and specific budgets to leverage co-benefits between gender equality, energy access and climate action
- Number of projects that have undertaken a mid-course gender review/audit and strengthened operational systems and made course corrections to mainstream gender
- Number of approved funding proposals (in new initiatives) that contain a gender assessment and a project-level gender action plan

### 10.3 Action area 3: Develop and make available tools and resources for energy team and other partners

As mentioned before, there is a need for more practical guidance and concrete ideas on gender than what is available, especially in the normative areas, such as policy/ regulations/ investments/ market development etc. Given this, there is a need to produce/ collate such resources in an easy-to-use form. The materials must be provided in a clearly structured manner and there should be instructions informing staff of where which materials can be found. A first list of resources that would be helpful is as follows. This will need to be brainstormed further.

- **Basic gender and energy module** with core gender and energy concepts, UNDP's gender priorities for the energy sector, and introduction to other material available
- **A gender mainstreaming package** that contains concrete entry points, along with a listing of available examples and resources, for each type of activity: energy access, urban energy, policy advice, climate action (1-2 pages for each intervention type). In addition, a 30 minute pre-recorded webinar on each topic and on-demand gender consultants can be considered as well.
- **Tools for programming**, including quick-lists to integrate gender into ongoing tasks: for gender-reviewing projects; developing work-plans; organizing workshops; developing ToRs; preparing budgets and communication. This can be done by the gender task team.
- **Sample indicators for measuring gender results**, including those in areas of women's entrepreneurship, productive use of energy, gender parity in employment, gender responsiveness in infrastructure projects, gender and energy links in climate action and in energy policy advice. This will need going beyond the indicators tracked in UNDP projects, which are not ambitious enough. There are a number of resources available for the energy sector (UNDP, 2015; Ceceslski and Dutta, 2012; UNDP, 2004) as well as from others (for example, ICRW, 2018 for indicators on women's economic empowerment), which will need to be adjusted for the energy sector, and more specifically for the kinds of activities UNDP energy team is engaged in. This can be done through a short consulting assignment.

### 10.4 Action area 4: Strengthen capacity of UNDP's energy team

Within the energy team, it is important to build a common understanding of the overall gender mainstreaming objective of the energy portfolio, as well as practical knowledge of what steps to take within each person's own area of work. Ensuring that the capacity building process actually translates into action requires three elements to be in place:

- Commitment refers to the recognition of gender equality as the aim of both UNDP's and of one's own work; it means taking responsibility for the implementation of gender mainstreaming within one's own area of operations.
- Methodological skills imply the ability to implement gender mainstreaming using the appropriate methods and tools. It also includes the ability to identify and procure the required gender-disaggregated data and to utilize this in one's own work.
- Specialist knowledge comprises in-depth knowledge about empirical facts about gender aspects within UNDP and specifically within each person's sphere of activities.

The following measures are suggested, which will need to be integrated within a time bound capacity building plan for the energy team.

- Each team member, at the time of on-boarding, must go through the basic gender and energy module, to ensure that are all up to date with state-of-the-art approaches on gender-energy
- Depending on their specific requirements, each team member should tap into the available resources.
- The Gender team can organize a brown-bag session once in six months, with one of the good practice projects sharing their experience

## 10.5 Next steps

- Prepare an update note on the gender review undertaken, the main findings and the agreed plans (gender task team) and share with the Energy Team
- An initial planning cum training session for the gender task team. This can be organized by an external subject specialist.
- A meeting (approximately 1 hour) of the whole Energy team, led by the Heads, to introduce the new developments and priorities - objectives, structure, expected staff participation and anticipated outcomes. The meeting provides an opportunity for the senior management to show commitment to gender mainstreaming and the competence development programme and for staff to raise concerns and provide concrete suggestions on the planned steps.
- In order to operationalize the various recommendations, small, 2-3 person teams may be formed for the following tasks:
  - to integrate gender equality and energy into the post 2021 UNDP strategic plan (time frame: tbd)
  - to work with the gender task team to develop a time bound capacity development plan (time frame: 3 months). This should contain:
    - the aims of capacity building process in accordance with the gender mainstreaming strategy
    - the participants and group composition
    - the course content, tailored to suit the gender mainstreaming methods and tools that are to be applied as well as the fields of intervention and working routines
    - scope, duration and time schedule

- to further explore each of the new areas suggested for new work and prepare a plan of action (timeframe: 3 months)
- 4 half -day workshops tailored to the specific thematic areas of energy access, urban planning, policy advice and new initiatives.

## Annex 1. UNDP Projects and initiatives reviewed

PIMS#	Official Project Title	Countries	Time frame
	Yemen waste to energy project	Yemen	To be implemented
5802	Towards a sustainable and efficient urban mobility system in Uruguay	Uruguay	2016-2021
	Integrating gender in the national strategic roadmap for the renewable energy sector of Sudan	Sudan	2020
5315	Nationally Appropriate Mitigation Actions in the Construction Sector in Mongolia	Mongolia	2016-2020
	Enhanced Rural Resilience in Yemen Programme (ERRY)	Yemen	2016-19
5270	Increasing access to clean and affordable decentralized energy services in selected vulnerable areas of Malawi	Malawi	2015-2021
5188	Asuncion Green City of the Americas Pathways to Sustainability	Paraguay	2015-
	De-Risking and Scaling-up Investment in Energy Efficient Building Retrofits	Armenia	2017-2023
5137	Catalyzing the Use of Solar Photovoltaic Energy	Iraq	2014-2020
4904	Energy Efficient Production and Utilization of Charcoal through Innovative Technologies and Private Sector Involvement	Sierra Leone	2015-2019
4679	Nationally Appropriate Mitigation Actions in the Energy Sector in Peru	Peru	
4606	Market Transformation and Removal of Barriers for Effective Implementation of the State Level Climate Change Action Plans	India	2015-2018
4522	Renewable Energy for Rural Livelihood (RERL)	Nepal	2014-2019
3948	Development of Sustainable Renewable Energy Generation (SREPGen)	Bangladesh	2014-2020
4493	Addressing barriers to the adoption of improved charcoal production technologies and Sustainable Land Management practices through an integrated approach	Uganda	2014-2018
3110	Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)	Pakistan	2007-2014
	Ecuador, NDC Support Programme	Ecuador	2017-2022

## Annex 2. Project Documents reviewed

### **Project: Increasing access to clean and affordable decentralized energy services in selected vulnerable areas of Malawi**

- Alfredo Caprile and Magi Matinga, July 2018, Mid Term Review Draft Final Report, Increasing access to clean and affordable decentralized energy services in selected vulnerable areas of Malawi
- Robert Aitken and Lameck Nkhonjera, 2019. TERMINAL EVALUATION REPORT for UNDP/GEF PROJECT, Increasing Access to Clean and Affordable Decentralised Energy Services in Selected Vulnerable Areas of Malawi Dec 2019

### **Project: Addressing Barriers to Adoption of Improved Charcoal Production Technologies and Sustainable Land Management Practices through an Integrated Approach, Uganda**

- Project Document, Republic of Uganda United Nations Development Programme Global Environment Facility Title: Addressing Barriers to Adoption of Improved Charcoal Production Technologies and Sustainable Land Management Practices through an Integrated Approach GEFSEC PROJECT ID: 4644; GEF AGENCY ID: PIMS 4493; AWARD ID: TBC . Microsoft Word - PIMS 4493\_Project Document\_Uganda MFA \_24.11.2013.docx (thegef.org)
- Ministry of Energy and Mineral Development, Uganda, 2017. Report of Gender Analysis for the Green Charcoal Project, June 2017
- The Green Charcoal Project - Addressing Barriers to Adoption of Improved Charcoal Production Technologies and Sustainable Land Management Practices through an Integrated Approach. <https://www.ug.undp.org/content/uganda/en/home/operations/projects/SustainableInclusiveEconomicDevelopmentProgramme/TheGreenCharcoalProject-AddressingBarrierstoAdoptionofImprovedCharcoalProductionTechnologiesandSustainableLandManagementPracticesthroughanIntegratedApproach.html>
- Report for the Mid- Term Review (MTR), National Evaluator Robert Nabanyumya International Evaluator/Report Author Maria Onestini April 28, 2017

### **Project: Renewable Energy for Rural Livelihood (RERL)**

- Terminal Evaluation, Final version, August 2019
- Annual Progress Report 2018

### **Project: De-Risking and Scaling-up Investment in Energy Efficient Building Retrofits, Armenia, 2017-23**

- Project Document: De-Risking and Scaling-up Investment in Energy Efficient Building Retrofits Brief Description. [Armenia: De-Risking and Scaling-up Investment in Energy Efficient Building Retrofits | UNDP in Armenia](#)
- Case study on “De-risking and Scaling-up Investment in Energy Efficient Building Retrofits” UNDP-GCF Project through gender equality lenses. Prepared by Diana Harutyunyan, Climate Change Programme Coordinator; Astghik Mirzakhanyan, National Expert on Social Vulnerability and Gender Issues, Nov 7, 2019. [https://www.am.undp.org/content/armenia/en/home/library/\\_de-risking-and-scaling-up-investment-in-energy-efficient-buildi.html](https://www.am.undp.org/content/armenia/en/home/library/_de-risking-and-scaling-up-investment-in-energy-efficient-buildi.html)
- De-Risking and Scaling-Up Investment in Energy Efficient Building Retrofits – Armenia. [De-Risking and Scaling-Up Investment in Energy Efficient Building Retrofits - Armenia | UNDP Climate Change Adaptation \(adaptation-undp.org\)](#)

- The “De-risking and Scaling-up Investment in Energy Efficient Building Retrofits” UNDP-GCF Project document, <http://www.nature-ic.am/Content/Projects/18/GCF%20PROJECT%20BRIEF%20ENG.pdf>
- FP010: De-risking and scaling-up investment in energy efficient building retrofits in Armenia Armenia | United Nations Development Programme (UNDP) | Decision B.13/23 8 June 2016
- GCF Documentation, Funding proposal on the "De-Risking and Scaling-Up Investment in Energy Efficient Building Retrofits - Armenia". [funding-proposal-fp010-undp-armenia.pdf](#) ([greenclimate.fund](http://greenclimate.fund))
- GCF, 2019. Annual Performance Report (APR) Reference Number (FP010): De-risking and Scaling-up Investment in Energy Efficient Building Retrofits in Armenia UNDP Annual Reporting Period Covered in this Report: (From 01-01-2019 to 31-12-2019)

**Project: Asuncion Green City of the Americas: Pathways to Sustainability, Paraguay, 2017-2022**

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## Annex 5. Interviews conducted

1. Ana Rojas, Gender, Energy and Climate Change Specialist
2. Andrew Eil, Focal Point – Climate Investment Platform and Climate Finance Specialist, UNDP
3. Annette Wallgren, Programme Management Officer, Gender & Climate Change, Asia and the Pacific Office, UNEP
4. Barbara, Istanbul, Gender equality and empowerment
5. Bharati Sadasivam, Regional gender advisor, UNDP, Istanbul, Turkey
6. Celia García-Baños, Associate Programme Officer, Policy, IRENA
7. Christelle Odongo-Braun, Regional Energy and Climate Change Specialist, UNDP Senegal
8. Christian López, NDC-SP Coordinator, UNDP Ecuador
9. Ciara Daniels, Policy Specialist, Gender and Environmental Finance, UNDP
10. Daniella Rough, Renewable Energy and Energy Efficiency NAMA Project Coordinator – UNDP, Peru
11. Emma Aberg, Programme Officer - Knowledge, Policy and Finance Center, IRENA
12. Faris Khader, Regional Technical Specialist for Climate Change, UNDP Addis Ababa
13. Jennye Greene, Managing Partner at Sustainable Energy Solutions
14. Lucia Cortina Correa, Climate Change and Energy Specialist, UNDP
15. Ludmilla Diniz, Regional Technical Advisor - Climate Change Mitigation-Energy, Infrastructure, Transport & Technology, UNDP
16. Marcel Alers, head of Energy, UNDP
17. María Inés Rivadeneira, Gender specialist for the NDC-SP, UNDP Ecuador
18. Mónica Andrade, responsible for the Environment area.
19. Mario Rodas, Programme Officer at UNDP Ecuador, energy and environment area.
20. Parimita Mohanty, Gender & Climate Change, Asia and the Pacific Office, UNEP
21. Paul Mbuti, Deputy Director of Renewable Energy at Ministry of Energy, Kenya
22. Sheila Oparaocha, International Coordinator and Programme Manager, ENERGIA
23. Stephen Gitonga, Regional Policy Advisor, UNDP Jordan
24. Verania Chao, Programme Specialist, UNDP

## Annex 6. Highlights of an assessment of NDC submissions

An assessment of some of the recent NDC submissions undertaken for the purpose of this assignment showed considerable variability in how they address gender. Majority of the most recent NDCs include a reference to gender, at best, in situation analysis and impacts. Some mention clean cooking.

- The Vietnam NDC, updated in July 2020, for example, has 14 references to women and 3 to gender, all within adaptation and cc impacts. Further, mitigation is linked to socio economic development, but there is no mention of women or gender.
- Similarly, the Mongolia and Thailand submissions, both in 2020, make no mention of women, girls or gender issues.
- The Sectoral Action Plans for Nigeria’s NDC to the UNFCCC submitted in Aug 2017 have some reference to gender, and mentions it largely as part of situational analysis. This is despite the assertion that the measures included in the Nigeria NDC were the outcome of a multi-criteria prioritization exercise, which included gender and social inclusion as one of the eight criteria. Interesting, Nigeria is one of the countries supported under the NDC Support programme, and UNDP has been supporting the development of NDC 2 for Finance and Investment Mobilization; private Sector Engagement; Monitoring and Transparency; Awareness and Advocacy. Gender should be cross cutting and condition in all NDC support. The recently developed 2020 National Action Plan on Gender and Climate change for Nigeria for the energy and transport sector (one of the five priority sectors) identified interventions includes research to assess gender-responsiveness of energy and transport sector policies, legislations and programs, and conduct practical trainings for women on the construction of wood efficient stoves and small biogas stoves. It is yet to be seen if this gets integrated into the sectoral plans.
- The Malawi INDC, submitted in 2017, mentions gender as a cross cutting theme, and women and girls as being impacted by firewood and water shortages. It does mention human rights and gender issues as being enshrined in the Constitution, and the commitment to Gender Policy. As far as the sectors are concerned, it mentions increasing Increase the number of households adopting energy saving stoves to 2,000,000 by 2030.

On the other hand, a few of the latest submissions do make a strong reference to gender issues.

- Nepal’s second NDC submission, made in December 2020, spells out the “full, equal and meaningful participation of women, children, youth, Indigenous Peoples and marginalized groups in climate change-related policy development” as a cross cutting priority. It also places significant emphasis on clean cooking energy, targeting that by 2030, ensure 25 percent of households use electric stoves as their primary mode of cooking. By 2025, install 500,000 improved cookstoves, specifically in rural areas. By 2025, install an additional 200,000 household biogas plants and 500 large scale biogas plants (institutional/industrial/municipal/community).
- Rwanda’s first NDC submission stands out for its attention to gender issues, and mentions that “Gender mainstreaming is a priority at all levels of policy and implementation and the NDC MRV will ensure gender disaggregated data is captured and reported as well as engage private sector in the support for national NDC MRV processes.” It also puts emphasis on cooking energy, highlighting dissemination of modern efficient cook stoves to 80 percent of the rural population and 50 percent of the urban population by 2030, achieving a more sustainable balance between supply and demand of biomass, and reducing firewood and

fossil energy consumption for cooking. However, beyond that, no specific measures are mentioned.

- The second NDC submitted by the Republic of the Marshall Islands Nationally Determined Contribution also identifies women, men and youth as target groups and final beneficiaries and commits to a gender-responsive and human rights-based approach in all NDC-related planning, programming and implementation. The National Adaptation Plan elaborates in detail immediate, accelerated gender-responsive actions and investments over the next five years (2019-2023) and one of the headline recommendations is to “Engage women stakeholders as key players in this sector and empower women as entrepreneurs with capacity building and technology transfer”. Also suggests increasing representation of women in national and local climate change decision-making and implementation x Increase representation of women in global decision-making processes and related events, gender analysis mandatory in all CC initiatives, training young women in CC and DRM.