



Gender Equality, Equity and Women's Empowerment Framework

A proposed framework to assess and monitor gender equality, equity and women's empowerment in modern energy cooking services (MECS)



Authored by; Dr Yesmeen Khalifa (MECS programme, Loughborough University)

June 2024



Executive summary

Shifting to modern energy cooking services (MECS) can bring many benefits for communities (such as social, economic and health), address multiple sustainability challenges and gender inequalities while achieving SDG7 (Stritzke et al. 2023). Yet, technology on its own does not guarantee more equitable and inclusive outcomes (Johnson et al. 2020). Social, political, economic and cultural dynamics contribute significantly in multiple ways, not just in the distribution of benefits and impacts, but also in decision-making and implementation (Johnson et al. 2020). There may be different outcomes and dynamics depending on the prevailing power relations, spatial and social contexts (Johnson et al. 2020). Existing structures of discrimination may also lead to women and disadvantaged groups being excluded not only from the social and economic benefits and impacts of such interventions, but also in decision-making and implementation (Arthur et al. 2022). Therefore, effective integration and understanding of the gender dimensions in the MECS sector and understanding existing structures are crucial to ensure a just transition, equal distribution of resources, and to remove structural barriers that limit individuals' participation and engagement in the sector to accelerate access to MECS.

This report identifies the gender dimensions in MECS sector and presents a holistic framework to monitor progress on gender equality, equity and women's empowerment in the MECS sector at the local and national, as well as in households and organizations. The framework considers multiple gender dimensions: 1) the ability to access modern energy cooking services (MECS), 2) the ability to access resources (co-benefits) related to the MECS sector (such as time and labour, safety and freedom of violence, health and well-being, knowledge, information and technologies, social capital, and financial resources), 3) the ability to exercise agency at the household level and public participation, and the freedom of movement, and 4) the multi-level enabling environment (social, policy, economic, and environmental contexts) to ensure equal access to MECS and MECS-related resources, employment and leadership positions, as well as the ability to participate in the MECS transition.

The proposed framework is based on the Social Measurement Tool that was developed by the Clean Cooking Alliance (CCA) and the International Centre on the Research for Women (ICRW) to measure how cleaner cookstoves and fuels empower women and create social change (CCA and ICRW 2016). The Social Measurement Tool is the most comprehensive tool that was developed for the clean cooking sector; however it requires further modification to fit with the significant progress and wider impact of the MECS sector. The framework also adapted the conceptual model that was established to monitor and achieve gender equality and equity in the water, sanitation and hygiene (WASH) sector (Caruso et al. 2021a; Caruso et al. 2021b). Both sectors, MECS and WASH provide access to basic services and bring significant social, economic and environmental benefits for communities, specifically for women and girls. The CCA and the ICRW Social measurement Tool and the WASH gender equality framework were tailored and modified to align with SDG 5 and SDG 7 interlinkages (UNDESA 2022) and to fit with the context of the MECS sector. Gender-specific indicators and survey questions were designed to monitor and assess progress made in each domain and sub-domain. Indicators and survey questions were influenced by the CCA and ICRW [Social Measurement Tool](#), Regulatory Indicators for Sustainable Energy ([RISE](#)), Women's Empowerment in Agriculture Index ([WEAI](#)), and the national, regional and global [tools and measures](#) that were used to assess gender equality in the WASH sector (Caruso et al. 2021c).

Who can use the gender framework? Why? How?

1. Some indicators can be used to understand the local characteristics to provide and tailor context-based solutions for MECS and improve the enabling environment (social, political, economic, physical environment) and reshape existing structures and institutions to support and promote gender equality while other indicators can be used to measure progress made on each domain and sub-domain.
2. Applying the gender equality, equity and women's empowerment framework can assist in understanding gender inequalities and identifying opportunities to mitigate negative impacts on end users, employees and entrepreneurs in the MECS value chain.
3. The framework can help in understanding individuals' needs and customizing MECS solutions that fit more with their needs, removing barriers that prevent individuals' (regardless of their gender identity, socioeconomic status or any other factors of discrimination) from engaging and participating in the sector, designing and implementing context-based policies and regulatory frameworks, and tailoring flexible and resilient business models to maximize gender co-benefits and reduce negative impacts.
4. Promoting gender equality and quantifying social impacts such as gender co-benefits, is quite challenging for project developers (Stritzke et al. 2023). However, by using the MECS gender equality framework, they can identify areas of empowerment, adapt projects to local contexts and provide better services to ensure equal access to MECS and MECS-related resources. In order to demonstrate their contribution to SDG 5 and attract funding, project developers can measure gender co-benefits by using the measurable indicators and survey questions that can be applied to small- and large-scale MECS projects and at household and organization levels.
5. The MECS gender equality framework provides a comprehensive understanding of the gender dimensions in the MECS sector for investors, donors, funders, and impact buyers who are interested in MECS projects that contribute to SDG 5 or high-integrity carbon credits that come with clear evidence of gender impacts and women's empowerment. The framework and the gender impact data can help them to compare projects and make better decisions regarding which projects they will invest in.
6. Gender statistics in the energy and clean cooking sector are limited (UNDESA 2022). Using the MECS gender equality framework, indicators and survey questions and the consistency of data collection at the local and national level can improve the quality of data on gender issues which is needed to inform policy options and enable policy makers to make evidence-based decisions that can improve the overall sustainable development outcomes of MECS interventions.

This material has been funded by UKAid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies.'

Acknowledgements

Special acknowledgements (in alphabetic order): Simon Batchelor (MECS programme, Loughborough University), Nora Bergin (4R Digital & Cavex), Lorraine Howe (Centre for Research on Governance and Development), Marc Jeuland (Duke Global Health Institute), Ruth Kinna (Loughborough University), Matthew Leach (MECS / Gamos), Louise Medland (MECS programme, Loughborough University), Chipso Mukonza (MECS / Loughborough University), Syprose Ochieng (Gamos East Africa), Rocío Pérez Ochoa (Bidhaa Sasa), Aine Petrulaityte (MECS / Gamos), Sheila Oparaocha (ENERGIA), Ruchi Sankrit (Care Economy Knowledge Hub & Intellectap), Leonardo Souza (UNSD / Energy Statistics), Samir Thapa (MECS / Loughborough University).

Contents

EXECUTIVE SUMMARY.....	1
1. INTRODUCTION	7
2. GENDER EQUALITY, EQUITY, AND WOMEN’S EMPOWERMENT: CONCEPTS AND DEFINITIONS	8
3. GAPS IN GENDER STATISTICS AND INDICATORS	9
4. GENDER INEQUALITIES IN THE ENERGY SECTOR: SDG5 AND SDG 7 INTERLINKAGES	10
5. EXISTING GENDER ANALYSIS FRAMEWORKS AND TOOLS	14
6. APPROACH TO DEVELOP A GENDER ANALYSIS FRAMEWORK FOR THE MECS SECTOR	18
7. A UNIFYING FRAMEWORK TO ASSESS AND MONITOR GENDER EQUALITY, EQUITY AND WOMEN’S EMPOWERMENT IN THE MECS SECTOR	19
7.1. GENDER DIMENSIONS IN THE MECS SECTOR.....	19
7.2. INDICATORS TO ASSESS AND MONITOR PROGRESS ON GENDER EQUALITY, EQUITY AND WOMEN’S EMPOWERMENT IN THE MECS SECTOR	21
7.2.1. DOMAIN 1: ABILITY TO ACCESS MODERN ENERGY COOKING SERVICES (MECS)	22
7.2.2. DOMAIN 2: ACCESS TO MECS-RELATED RESOURCES	23
7.2.2.1. SUB-DOMAIN 2.1: TIME AND LABOUR.....	23
7.2.2.2. SUB-DOMAIN 2.2: SAFETY AND FREEDOM OF VIOLENCE.....	24
7.2.2.3. SUB-DOMAIN 2.3: HEALTH AND WELL-BEING.....	24
7.2.2.4. SUB-DOMAIN 2.4: KNOWLEDGE, INFORMATION AND TECHNOLOGY	25
7.2.2.5. SUB-DOMAIN 2.5: FINANCIAL RESOURCES.....	27
7.2.2.6. SUB-DOMAIN 2.6: SOCIAL CAPITAL.....	28
7.2.2.7. DOMAIN 3: ABILITY TO EXERCISE AGENCY.....	29
7.2.2.8. SUB-DOMAIN 3.1: HOUSEHOLD DECISION-MAKING.....	29
7.2.2.9. SUB-DOMAIN 3.2: PUBLIC PARTICIPATION	30
7.2.2.10. SUB-DOMAIN 3.3: FREEDOM OF MOVEMENT.....	32
7.2.3. DOMAIN 4: MULTI-LEVEL ENABLING ENVIRONMENT.....	33
7.2.3.1. SUB-DOMAIN 4.1: SOCIAL CONTEXT.....	33
7.2.3.2. SUB-DOMAIN 4.2: POLICY CONTEXT.....	34
7.2.3.3. SUB-DOMAIN 4.3: ECONOMIC CONTEXT.....	36
7.2.3.4. SUB-DOMAIN 4.4: ENVIRONMENTAL CONTEXT.....	37
8. CONCLUSION AND WAY FORWARD	38
REFERENCES	39
APPENDICES	43
APPENDIX 1: SURVEY QUESTIONS FOR DOMAIN 1: ABILITY TO ACCESS MODERN ENERGY COOKING (MECS) SERVICES.....	43
APPENDIX 2: SURVEY QUESTIONS FOR DOMAIN 2: ACCESS TO MECS-RELATED RESOURCES, SUB-DOMAIN 2.1: TIME AND LABOUR.....	50
APPENDIX 3: SURVEY QUESTIONS FOR DOMAIN 2: ACCESS TO MECS-RELATED RESOURCES, SUB-DOMAIN 2.2: SAFETY AND FREEDOM OF VIOLENCE.....	61
APPENDIX 4: SURVEY QUESTIONS FOR DOMAIN 2: ACCESS TO MECS-RELATED RESOURCES, SUB-DOMAIN 2.3: HEALTH AND WELL-BEING.....	65
APPENDIX 5: SURVEY QUESTIONS FOR DOMAIN 2: ACCESS TO RESOURCES RELATED MECS, SUB-DOMAIN 2.4: KNOWLEDGE, INFORMATION AND TECHNOLOGIES.....	70
APPENDIX 6: SURVEY QUESTIONS FOR DOMAIN 2: ACCESS TO MECS-RELATED RESOURCES, SUB-DOMAIN 2.5: FINANCIAL RESOURCES.....	75
APPENDIX 7: SURVEY QUESTIONS FOR DOMAIN 2: ACCESS TO MECS-RELATED RESOURCES, SUB-DOMAIN 2.6: SOCIAL CAPITAL.....	84
APPENDIX 8: SURVEY QUESTIONS FOR DOMAIN 3: ABILITY TO EXERCISE AGENCY, SUB-DOMAIN 3.2: HOUSEHOLD DECISION-MAKING	93
APPENDIX 9: SURVEY QUESTIONS FOR DOMAIN 3: ABILITY TO EXERCISE AGENCY, SUB-DOMAIN 3.2: PUBLIC PARTICIPATION.....	100
APPENDIX 10: SURVEY QUESTIONS FOR DOMAIN 3: ABILITY TO EXERCISE AGENCY, SUB-DOMAIN 3.3: FREEDOM OF MOVEMENT.....	121
APPENDIX 11: SURVEY QUESTIONS FOR DOMAIN 4: MULTI-LEVEL ENABLING ENVIRONMENT, SUB-DOMAIN 4.1: SOCIAL CONTEXT.....	126

APPENDIX 12: SURVEY QUESTIONS FOR DOMAIN 4: MULTI-LEVEL ENABLING ENVIRONMENT, SUB-DOMAIN 4.2: POLICY CONTEXT..... 139

APPENDIX 13: SURVEY QUESTIONS FOR DOMAIN 4: MULTI-LEVEL ENABLING ENVIRONMENT, SUB-DOMAIN 4.3: ECONOMIC CONTEXT.....160

APPENDIX 14: SURVEY QUESTIONS FOR DOMAIN 4: MULTI-LEVEL ENABLING ENVIRONMENT, SUB-DOMAIN 4.4: ENVIRONMENTAL CONTEXT
.....166

List of Figures

FIGURE 1: THE GENDER-TRANSFORMATIVE APPROACH (PEDERSON ET AL. 2014; UNICEF 2022). 13

FIGURE 2: CONCEPTUAL FRAMEWORK OF DIMENSIONS OF GENDER EQUALITY RELATED TO WASH (CARUSO ET AL. 2021A)..... 17

FIGURE 3: STEPS TOWARDS DEVELOPING THE GENDER EQUALITY, EQUITY, AND WOMEN’S EMPOWERMENT FRAMEWORK FOR THE MECS SECTOR.
..... 19

FIGURE 4: GENDER DIMENSIONS IN THE MECS SECTOR. 20

FIGURE 5: A PROPOSED FRAMEWORK TO ASSESS AND MONITOR GENDER EQUALITY, EQUITY AND WOMEN’S EMPOWERMENT IN THE MECS
SECTOR - ADAPTED FROM CCA AND ICRW SOCIAL MEASUREMENT TOOL AND THE WASH FRAMEWORK..... 21

FIGURE 6: CONSUMER ACTOR NETWORKS (BATCHELOR 2022). 26

List of Tables

TABLE 1: DESCRIPTION OF THE 4 KEY AREAS OF THE GENDER DIMENSIONS IN THE ENERGY SECTOR (UNDESA 2022)..... 11

TABLE 2: PROPOSED AND POSSIBLE FURTHER INDICATORS FOR SDG 7 AND SDG 5 INTERLINKAGES (UNDESA 2022). 12

TABLE 3: MEASURING GENDER CO-BENEFITS OF CLEAN COOKING INTERVENTIONS (ESMAP 2020)..... 15

Abbreviations

EPC	Electric pressure cooker
MECS	Modern energy cooking services
SDGs	Sustainable Development Goals
WASH	Water, Sanitation and Hygiene

1. Introduction

The 2030 Agenda for Sustainable Development clearly states that gender equality and women's empowerment are central to the achievement of Sustainable Development Goals (United Nations 2015).

“Realizing gender equality and the empowerment of women and girls will make a crucial contribution to progress across all the Goals and targets. The achievement of full human potential and of sustainable development is not possible if one half of humanity continues to be denied its full human rights and opportunities. Women and girls must enjoy equal access to quality education, economic resources and political participation as well as equal opportunities with men and boys for employment, leadership and decision-making at all levels. We will work for a significant increase in investments to close the gender gap and strengthen support for institutions in relation to gender equality and the empowerment of women at the global, regional and national levels. All forms of discrimination and violence against women and girls will be eliminated, including through the engagement of men and boys. The systematic mainstreaming of a gender perspective in the implementation of the Agenda is crucial” (United Nations 2015).

However, progress on gender equality has been highly differentiated across all the goals and targets of the 2030 Agenda, including SDG7- universal access to modern energy (UN Women 2018; UN Women, UNDESA 2023). None of SDG 7 indicators are gender-specific (UN Women and UNDESA 2023). Data on energy, specifically electricity (indicator 7.1.1) and clean cooking (indicator 7.1.2) is rarely disaggregated by gender and data or analysis of issues addressing the gender and energy nexus is very limited (Kooijman et al. 2023). The absence of formal recognition of gender and energy interconnections (when SDGs were first proposed in 2015), gender-specific indicators and data hinders gender mainstreaming in the energy and clean cooking sectors as well as monitoring and assessing progress (Kooijman et al. 2023; Stritzke et al. 2023; UN Women 2018). Recently, SDG 7 and SDG 5 interlinkages have been recognized, and 4 key areas have been identified where gender inequalities are substantial in the energy sector; 1. access to electricity and clean cooking fuels and technology, 2. employment and leadership, 3. entrepreneurship, and 4. the enabling environment for women's participation in the energy sector (UNDESA 2022). A few indicators have been proposed to monitor progress on each theme, 4 out of 15 indicators are related to clean cooking, and data is available for only one indicator (Indicator 2.1.2: Proportion of population with primary reliance on clean cooking fuels and technology, disaggregated by female-headed and male-headed households) (UNDESA 2022). Considering intersectionality and how gender intersects with other socioeconomic statuses is necessary to make these indicators more inclusive (Kooijman et al. 2023)

According to the SDG7 progress report 2023, over 2.3 billion people, mostly in the global south, lack access to clean cooking (IEA et al. 2023). The poorest communities and women are most affected by this massive challenge, particularly women who are traditionally responsible for cooking and fuel collection (Mari 2020). Using inefficient and polluting cooking fuels disproportionately affect women's and girls' health and safety; from daily exposure to toxic smoke to the burden of fuel collection, carrying heavy loads for long distances and risks of gender violence (Mari 2020; Njenga et al. 2021; WHO 2022; Stritzke et al. 2023). Spending many hours every day on fuel collection limits women's participation in income-generation, education and leisure activities and prevents girls from attending school (Krishnapriya et al. 2021; Njenga et al. 2021; WHO 2022; Stritzke et al. 2023). The lack of access to clean cooking is a complex challenge with multiple negative impacts on sustainable development. Shifting to MECS can bring many benefits for women while achieving SDG7 (Stritzke et al. 2023). MECS can reduce the burden of fuel collection, reduce the risk of sexual violence during firewood collection, save time, and open women's opportunities for education and employment

(Stritzke et al. 2023). Furthermore, women’s participation and leadership in the MECS sector is key to increase the adoption of MECS (Stritzke et al. 2023). Effective integration and understanding of gender dimensions in the MECS sector are crucial to ensure a just transition, equal distribution of resources, to remove barriers that limit individuals' participation and engagement in the sector, and to accelerate access to MECS.

Understanding the gender dimensions and developing indicators can also help project developers to measure gender co-benefits of MECS projects and demonstrate contributions to SDG 5 (Khalifa 2023). Measuring social impacts is challenging and time-consuming, therefore project developers usually use “time-savings” to measure gender co-benefits, the most common and measurable indicator (Stritzke et al. 2023). Achieving **one** SDG 5 target (5.4 Recognize and value unpaid care and domestic work) out of **nine** sub-targets (Khalifa 2023; Stritzke et al. 2023). Identifying new domains and impact areas of women’s engagement and empowerment across MECS value chains and developing new measurable and practical indicators will enable project developers to demonstrate gender co-benefit alongside carbon reductions and other SDGs.

The aim of this work is to explore gender dimensions in the MECS sector and develop a unifying framework and indicators to monitor progress and promote gender equality, equity and women’s empowerment across the sector.

This report consists of 8 sections; 1) Introduction, 2) Gender equality, equity and women’s empowerment: concepts and definitions, 3) Gaps in gender statistics and indicators, 4) Gender inequalities in the energy sector: SDG 5 and SDG 7 interlinkages, 5) Existing gender analysis frameworks and tools, 6) Approach to develop a gender framework for the MECS sector, 7) A unifying framework to assess and monitor gender equality, equity and women’s empowerment in the MECS sector (this section includes all the domains and sub-domains), and 8) conclusion. The appendices include all the survey questions.

2. Gender equality, equity, and women’s empowerment: concepts and definitions

In order to gain an adequate understanding of gender dimensions in the MECS sector, clarity on related definitions and concepts is required.

Gender “Gender refers to the characteristics of women, men, girls and boys that are socially constructed. This includes norms, behaviours and roles associated with being a woman, man, girl or boy, as well as relationships with each other. As a social construct, gender varies from society to society and can change over time” (WHO 2024). **It is well known that women and girls in the global south are the most affected by the lack of access to modern energy cooking services.**

Gender equality “refers to the absence of any discrimination based on gender, with equal rights, responsibilities, and opportunities for everyone. This means transforming the distribution of opportunities, choices, and resources available to women and all genders so that they have equal power to shape their lives and participate in the process – thereby increasing equality between people of all genders” (UK PACT 2024).

Gender equity goes beyond gender equality, “equity means that we provide resources and opportunities that fit the specific needs or circumstances of that person or group, and in that way, we can reach an equal outcome. Equality is the end goal; equity is the means to get there,” (WEF 2023).

Gender and intersectionality “gender is hierarchical and produces inequalities that intersect with other social and economic inequalities. Gender-based discrimination intersects with other factors of discrimination, such as ethnicity, socioeconomic status, gender identity, age, disability, the level of education

and literacy, geographic location, among others. This is referred to as intersectionality” (WHO 2024). “Intersectionality is the acknowledgement that everyone has their own unique experiences of discrimination and oppression, and we must consider everything that can marginalise people – gender, race, class, physical ability, etc” (UK PACT 2024). **Failing to consider intersectionality could limit the impact of our efforts to promote gender equality and could even worsen the situation for some of the most disadvantaged women and vulnerable groups** (Nedera 2023).

Gender equality and social inclusion (GESI) mainstreaming “refers to the process of assessing the implications for everyone (people of all gender identities, as well as any disadvantaged groups, on the basis of any factor) of any planned action, including policies or programmes, in all areas and at all levels. A way to make women and disadvantaged groups’ concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic, and societal spheres – so that everyone benefits equally regardless of their gender and socioeconomic status or any other factors of discrimination” (Arthur et al. 2022; UK PACT 2024).

Social exclusion “occurs when certain groups are systematically disadvantaged based on social characteristics, such as gender, age, disability, ethnicity, caste, migrant status, type of household (e.g. one-person household, single parent), the level of education and literacy, employment status, or housing status. This results in different social, political, and economic inequalities and can result in individuals being discriminated against and denied recognition and resources”, (UK PACT 2024).

Social inclusion is “the process of improving the terms for individuals and groups to take part in society, and improving the ability, opportunity and dignity of people disadvantaged on the basis of their identity to take part in society. It is essentially making the ‘rules of the game’ fairer where there are imbalances”, (UK PACT 2024)

Empowerment “refers to the enhancement of assets and capabilities that allows individuals and groups to function and to engage. It also means they can influence decision makers and hold the institutions that affect them accountable. Empowerment occurs at both the individual and group level and enables individuals and groups to build agency (their capacity to act on their own behalf), and to exercise power they gain individually and from collective action”, (UK PACT 2024).

3. Gaps in gender statistics and indicators

Gender statistics is important to inform policy and decision-makers and to make progress towards achieving gender equality (UNECE and WBI 2010). Gender statistics follow the same procedures that are used to produce any other statistics, but with a focus on integrating gender issues and reflecting gender concerns (UNECE and WBI 2010). Gender statistics are more than data disaggregated by sex, for example, breaking down data by sex does not ensure that instruments used in data collection were designed to reflect gender roles, relations and inequalities in society (United Nations 2001; UNECE and WBI 2010; United Nations 2016). Policies and programmes affect individuals in different ways based on their position in society, so the focus on women or men only will not be appropriate. In other cases, a focus on women or men only can be accepted for example, some issues related to health that are specific to women or men (UNECE and WBI 2010). Gender statistics not only demonstrate gender differences, but also effective tracking of gender statistics can reinforce and improve the statistical system as a whole (UNECE and WBI 2010). Women and men continue to have diverse roles in society, as well as different interests, skills, and access to and control over resources (UNECE and WBI 2010). Statisticians will not be able to effectively fulfil their mandate if official statistics did not reflect these differences (UNECE and WBI 2010).

Gender indicators are derived from gender statistics, indicators are useful tools for tracking progress on gender equality (United Nations 2016). Not all statistics are indicators, when a statistic has a benchmark against which values can be assessed, it becomes an indicator (Canadian International Development Agency 1997; United Nations 2016). Any change from the reference point, which can be either a norm or a benchmark, in a particular direction can be interpreted as "good" or "bad", (Canadian International Development Agency 1997; United Nations 2016). When it comes to gender statistics, the status of women in a given country is typically assessed in relation to—and compared to the status of men in the same country (United Nations 2016). Gender indicators are useful in identifying changes in gender over time, therefore they can be used to assess if the objective of gender equality have been achieved (United Nations 2016).

The SDGs global indicator framework has 54 gender-specific indicators. The indicator framework is gender-sensitive in 6 out of 17 goals (SDGs 1, 3, 4, 5, 8 and 16), neutral in SDGs 2, 10, 11, 13 and 17, and blind in SDGs 6, 7, 9, 12, 14 and 15 (UN Women 2018). Seven out of seventeen SDGs have no gender-specific indicators including SDG 7 (UN Women and UNDESA 2023). Gender statistics and indicators are needed to monitor and measure progress towards achieving gender equality and equity across all 17 SDGs (UN Women and UNDESA 2023). To ensure that no women or girl is left behind and their needs are visible, enhancing the generation and use of gender statistics is essential (UN Women and UNDESA 2023). This includes gathering data on gender and overlapping forms of inequality (UN Women and UNDESA 2023). Using these statistics, inclusive, evidence-based policies and programmes can address historical injustices, eliminate stigmas and stereotypes, and guarantee that women and girls, regardless of their background, are empowered and reach their full potential (UN Women and UNDESA 2023).

Therefore, the main purpose of this report is to identify the gender dimensions in the MECS sector and develop indicators to measure and monitor progress on gender equality, equity and women's empowerment.

4. Gender inequalities in the energy sector: SDG5 and SDG 7 interlinkages

To address the gender gap in the energy and clean cooking sectors, the [UN identified four key areas](#) where gender inequalities are substantial in the energy sector (UNDESA 2022):

1. Access to electricity and clean cooking fuels and technologies
2. Employment and leadership, both managerial and political
3. Energy entrepreneurship and productive uses of energy
4. The enabling environment for women's participation in the energy sector

Table 1: Description of the 4 key areas of the gender dimensions in the energy sector (UNDESA 2022).

Key areas/themes	Description
1. Access to electricity and clean cooking fuels and technology	<p>“Unequal Energy access disproportionately affects women due to their gender roles and responsibilities, via time spent in domestic chores and unpaid care; this limits access to education and employment, increases women’s exposure to health risks especially indoor air pollution, thus degrading their well-being, excludes them from new digital technologies that are prerequisites for decent employment and cultural and political engagement, and lowers productivity in their businesses and farms (UN Women and UNDESA 2020). These factors could ultimately affect women’s reproductive choices, and hence demographics and even future carbon emissions (Belmin et al. 2021). Multiple studies show that women are 9 to 23 percentage points more likely to gain employment outside the home following electrification,” (UNDESA 2022; ESMAP [no date]).</p>
2. Employment and leadership, both managerial and political	<p>“A just transition should guarantee equal opportunities for both women and men in the work force in Employment and leadership, where gender diversity has been shown to deliver both higher effectiveness and better financial performance. Access to quality jobs and to finance are key levers of change and empowerment for women and their families. In renewable energy, less than a third of jobs overall and only 22% of technical jobs are estimated to be held by women (IRENA 2019), and in the power sector, women’s share in employment in utilities may be even lower (Baldinger [no date]). At least 30% female leadership in firms is linked with profit margins of up to six percentage points higher than in firms with no women in the top ranks (ESMAP [no date]). Companies with women in their management tend to invest more in sustainability, are more energy-efficient, and more environmentally sustainable,” (Levin and Ganay 2021; UNDESA 2022)</p>
3. Energy entrepreneurship and productive uses of energy	<p>“Entrepreneurship is a critical vector for women’s empowerment, and women entrepreneurs are the source of many innovations to mitigate climate change. Through their businesses, women entrepreneurs (often heads of households) provide income for food, healthcare, and children’s education. Energy access plays a critical role in diversifying women’s livelihoods through productive uses that increase income and can reduce poverty. Women entrepreneurs can also improve the effectiveness of the energy supply chain by fast-tracking the last-mile distribution of renewable energy technologies, due to their unique ability to connect with their customers; they can also increase awareness in their communities and deliver products and services through untapped social networks (Dutto 2018). Globally, women represent one in three growth-oriented entrepreneurs across all sectors yet receive less than 3% of equity financing (GEM 2023). Female entrepreneurs face more barriers to business success than men, and these need to be overcome restricted mobility, social and cultural norms, and most important, difficulties in accessing both formal and informal credit, partly due to low asset ownership, lack of access to networks, and gender bias,” (UNDESA 2022).</p>
4. The enabling environment for women’s participation in the energy sector	<p>“The Enabling environment for women’s participation in the energy sector includes gender-responsiveness in energy planning, policymaking, regulation, and tracking and monitoring of progress. Yet energy policies and planning are often gender-blind and lack a gender perspective. Women are under-represented in energy decision-making processes, gender-disaggregated data and information are sparse, and policymakers and practitioners lack awareness with respect to gender dimensions. Gender inequality can be further exacerbated by national energy policies, regulations, and subsidies, due to women’s differing labour-market and mobility patterns, as well as the difficulties they encounter in accessing subsidies and credit, especially in the informal sector. For example, fossil fuel production subsidies have largely been directed at industry and transport rather than cooking fuels and tend to be regressive. Although in 2018, \$1.9 trillion was invested in electrification globally (IEA 2018), interventions and investment to address gender gaps in the sector remain minimal” (UNDESA 2022).</p>

And the [UN proposed 3 indicators](#) to measure and track the progress of energy access (theme 1) and the enabling environment (theme 4) - based on the availability of data at the national level globally, (UNDESA 2022) (see Table 2). More indicators were proposed to track progress on themes 2 and 3 (see Table 2). Four out of 15 indicators are directly linked to clean cooking and the indicators focus on measuring access to clean cooking, time spent on cooking and fuel collection, and the “cost of inaction” on cooking energy. The health impact indicator related to household air pollution does not clearly specify whether these impacts are related to cooking with polluting fuels or using these fuels for other purposes such as heating. In general, data is available for 3 indicators, one of which is related to clean cooking (2.1) and data is limited for the remaining indicators. Data is an issue that needs to be addressed.

Table 2: proposed and possible further indicators for SDG 7 and SDG 5 interlinkages (UNDESA 2022).

	Definition	Key partners ¹	Aligns with
2.1	Proposed indicators with available data		
2.1.1	<i>Proportion of population with access to electricity, disaggregated by female-headed and male-headed households.</i>	World Bank, MTF, OPHI	SDG 7.1.1
2.1.2	<i>Proportion of population with primary reliance on clean cooking fuels and technology, disaggregated by female-headed and male-headed households.</i>	WHO, MTF, OPHI	SDG 7.1.2
2.1.3	<i>Whether or not national, regional, and international energy policies and frameworks are in place that promote, enforce, and monitor equality and non-discrimination on the basis of sex</i>	RISE/World Bank, UN Women	SDG 5.1.1 SDG 5.C.1
2.2	Other indicators with some available data		
	For Energy Poverty/Access gender gap:		
	<i>A financial target such as “Annual tracked commitments to clean cooking” or the “cost of inaction” on cooking energy</i>	Clean Cooking Alliance	SDG 7.1.2
	<i>Proportion of time spent on fuel collection and cooking by men and women</i>	MTF, RISE	SDG 5.4
	<i>Proportion of households with lighting in kitchen/access to electrical appliances and end-uses that reduce unpaid care work</i>	MTF, CLASP	SDG 7.1.1 SDG 5.4
	<i>Proportion of educational facilities with adequate electricity/clean cooking, by boys’/girls’ schools</i>	UNESCO, MTF	SDG 4
	<i>Mortality rate attributed to household and ambient air pollution, age-standardized, female (per 100,000 female population) (Indicator SDG 3.9.1)</i>	WHO	SDG 3.9.1
	For Employment and Leadership gender gap:		

¹ Key to new acronyms: Collaborative Labeling and Appliance Standards Program (CLASP); The United Nations Educational, Scientific and Cultural Organization (UNESCO); International Finance Corporation (IFC); International Labour Organization (ILO); International Renewable Energy Agency (IRENA); International Energy Agency (IEA); Development Assistance Committee (DAC), (UNDESA 2022).

	Definition	Key partners ¹	Aligns with
	<i>Proportion (%) of women employed in the energy value chain for technical and administrative jobs related to the energy/renewable energy sector</i>	IFC, ILO, IRENA, ESMAP, RISE/World Bank, IEA, UN Women	SDG 7.2 SDG 8
	<i>Proportion of women in managerial positions and proportion of women in senior and middle management positions in the energy sector</i>	ILO, IRENA, ESMAP, RISE, OECD/IEA, UN Women	SDG 5.5.2
	<i>Proportion of women in senior political positions in relevant ministries, national energy agencies and entities</i>	IRENA, RISE, IEA, UN Women, Clean Energy Ministerial	SDG 5.5.2
	For Entrepreneurship gender gap:		
	<i>Proportion of male and female-owned businesses with electricity connections</i>	UNIDO, UN Women	SDG 8
	<i>Proportion of women and men energy owners/managers of established energy businesses</i>	Global Economic Monitor/World Bank, IFC, UNIDO, UN Women	SDG 8
2.3.3	<i>Proportion of finance available for women-led and men-led energy businesses</i>	IFC, UNIDO, UN Women	SDG 8
2.4	For Enabling Environment gender gap:		
2.4.2	<i>Tracking systems and budget allocations for gender equality in the energy sector</i>	RISE/World Bank, UN Women, OECD/DAC	SDG 5.C.1

Developing gender-specific indicators for the MECS sector is important to identify which types of programmes, policies and projects contribute to gender equity and which contribute to gender inequity (see Figure 1). Figure 1 shows the gender-transformative approach that was originally developed to address gender inequalities in the health sector, and it is widely used in other sectors (UNICEF 2022). The gender transformative approach can be also used as an assessment scale to rank MECS projects based on their contribution to gender equity. However, to apply the gender-transformative approach or use it as an assessment scale, we first need to understand the gender dimensions in the MECS sector and generate data that can be used to address gender inequalities and inequities.

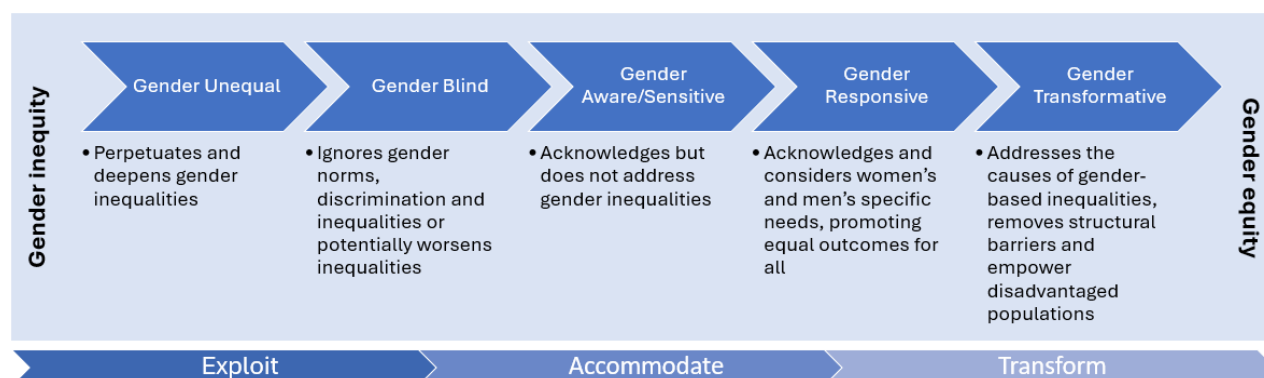


Figure 1: The gender-transformative approach (Pederson et al. 2014; UNICEF 2022).

5. Existing gender analysis frameworks and tools

Measuring gender impacts of clean cooking interventions (monetizing gender co-benefits)

Evidence shows that the empowerment of women in climate projects can improve climate outcomes for all, leading to a more efficient use of resources and more sustainable outcomes (ASEAN Low Carbon Energy Programme 2022). Therefore, there is growing interest in promoting gender equality in VCM (Voluntary Carbon Markets) projects that are designed to reduce or remove carbon emissions (Stritzke et al. 2023). Furthermore, there is an increasing number of buyers who are interested in high integrity carbon credits that come with 'co-benefits' with clear evidence of impacts for women (ASEAN Low Carbon Energy Programme 2022b). Accordingly, the demand of carbon credits with gender impacts is expected to increase and to meet buyers demands, robust methodologies are needed to measure gender impacts and provide the required evidence (ASEAN Low Carbon Energy Programme 2022). The significant development of MECS, provides a great opportunity to promote gender equality, equity and women's empowerment across MECS value chains (Stritzke et al. 2023). The sector can attract carbon credit buyers who are interested in projects that come with gender impacts, however, robust methodologies are needed to measure gender impacts of such projects.

A review of existing methods and tools that are used to measure gender co-benefits of clean cooking interventions, shows that Gold Standard (GS) and the W+ Standard developed their own approaches to monetize gender co-benefits, while Verra is currently developing a new methodology to measure time savings from improved cookstoves (see Table 3) (Stritzke et al. 2023). None of existing methodologies were originally designed specifically for the MECS sector apart from Social Measurement Tool that was developed by the Clean Cooking Alliance (CCA) and the International Centre on the Research for Women (ICRW) (CCA and ICRW 2016; Khalifa 2023; Stritzke et al. 2023). The tool was developed to measure how cleaner cookstoves and fuels empower women and create social change (ESMAP 2020; Stritzke et al. 2023). Indicators and survey questions were designed to assess and collect social impact data to maximise positive social impacts and reduce/mitigate negative impacts that clean and/or efficient cookstoves can have on end users, employees and entrepreneurs engaged in such projects. Despite that the Social Measurement Tool is the most comprehensive tool developed for the clean cooking sector, the tool requires further modifications to capture gender dimensions in the MECS sector due to the significant progress of the sector and its wider impacts.

Table 3: Measuring gender co-benefits of clean cooking interventions (ESMAP 2020)

Criteria	Scope	Gender Analysis
Gender analysis frameworks and tools		
WEAI The Women's Empowerment in Agriculture Index	An innovative tool that measures women's empowerment in agriculture. This measurement tool helps diagnose areas of disempowerment and design development programs to address those areas. It measures the roles and extent of women's engagement in agriculture across five domains of empowerment and compares women's empowerment relative to men within the same household. https://weai.ifpri.info/	The WAEI includes five domains: 1. Production 2. Resources 3. Income 4. Leadership 5. Time https://weai.ifpri.info/about-weai/
CCA and ICRW Clean Cooking Alliance and International Centre for Research on Women (ICRW) Social Measurement Impact System	The Social Impact Assessment System is a tool used: 1) to identify how the adoption of clean and/or efficient cookstoves and fuels can improve women's social and economic well-being and 2) to assess how the involvement in clean and/or efficient cookstoves and fuels can improve women's social and economic empowerment. MEASURING SOCIAL IMPACT	For users of clean and/ or efficient cookstoves and fuels, these social impacts can include shifts in: 1. Household finances 2. Time use 3. Status 4. Safety/protection 5. Drudgery For employees and entrepreneurs engaged in clean and/or efficient cooking value chains, these social impacts can include shifts in: 1. Access to and use of financial services and credit 2. Access to and participation in training and mentoring 3. Access to and participation in networks 4. Empowerment/agency (for instance, communication skills, status, and decision-making). 489-1.pdf (cleancooking.org)
Crediting programmes		
Gold Standard	Gold Standard for the Global Goals allows for the issuance of certified SDG impacts, from water benefits to renewable energy certificates to health or gender equality benefits. This enables project developers to monetise project impacts and provides project funders with the highest levels of assurance that outcomes have been achieved. https://www.goldstandard.org/impact-quantification/certified-sdg-impacts	<ul style="list-style-type: none"> ▪ Gender sensitivity is mandatory for all Gold Standard certified projects. ▪ Gender responsiveness: projects can seek further certification to be 'Gender Responsive' and claim their contribution to SDG 5 including: <ul style="list-style-type: none"> - SDG Target 5.1: End all forms of discrimination against all women and girls everywhere. - SDG Target 5.4: Recognise and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate. - SDG Target 5.5: Ensure women's full and effective participation and equal

Criteria	Scope	Gender Analysis
		<p>opportunities for leadership at all levels of decision-making in political, economic, and public life.</p> <p>Certified SDG Impacts The Gold Standard</p>
<p>WOCAN/W+ Women Organizing for Change in Agriculture and Natural Resource Management</p>	<p>The W+ Standard, created by WOCAN, is the first women-specific standard that measures women’s empowerment in a transparent and quantifiable manner, gives a monetary value to results and creates a new channel to direct financial resources to women. The W+ Standard - WOCAN</p>	<p>The W+ Standard measures six domains that are critical for women’s empowerment:</p> <ol style="list-style-type: none"> 1. Time savings 2. Income & Assets 3. Health 4. Leadership 5. Education & Knowledge 6. Food Security. <p>The W+ Standard - WOCAN</p>
<p>Verra</p>	<p>Verra has several types of credit standards Home - Verra. Verra’s Sustainable Development Verified Impact Standard (SD VISta) assesses projects contributions to SDGs including SDG 5: Gender equality. For a bundle approach project developers can use Verra’s Verified Carbon Standard (VCS) with WOCAN/W+ to demonstrate gender impacts (ASEAN Low Carbon Energy Programme 2022a).</p>	<p>Projects may use any method to meet the core SD VISta requirements. Verra will provide guidance on appropriate methodologies and, in cases where projects generate SD VISta assets, Verra will approve methodologies https://verra.org/develop-an-sd-vista-methodology/. For SDG 3, SDG 5 and SDG7 project developers can use Methodology for Time Savings from Improved Cookstoves (ICS) For a bundle approach project developers can use Verra’s Verified Carbon Standard (VCS) with WOCAN/W+ to demonstrate gender impacts. All methodologies for Verra’s 4 crediting programs: https://verra.org/methodologies-main/#sd-vista-methodologies</p>

A review of Gold Standard certified projects, specifically, clean cooking interventions shows that most project developers use “time saving” as an indicator to claim gender co-benefits. Measuring and monitoring social impacts is more difficult and requires more time that might exceed the project duration; therefore, project developers prefer to use “time saving” as an indicator. Project developers claim their contribution to **one** SDG 5 target (5.4 Recognize and value unpaid care and domestic work) out of **nine** sub-targets (Khalifa 2023; Stritzke et al. 2023).

In [IFC recent report](#), ‘Quality time’ was used to measure the gender impacts (a shift from lower-valued to higher-valued activities in terms of income-generation) rather than measuring time savings because women’s saved time could be used in other unpaid work. While [ESMAP](#) used ‘time use’ and ‘time-use agency’ to measure gender impacts, and other unrelated factors to time use were considered (such as input in household decisions, changes in traditional gender norms related to cooking, cost savings, and/or impacts on stress and overall well-being and quality of life). Both reports provide a better understanding of gender equality dimensions in the clean cooking sector. However, there is a potential to identify new domains and impact areas for gender equality, equity and women’s empowerment in the context of the MECS sector.

Tailoring and developing a new measurement tool specifically for MECS projects is essential to enable project developers to capture and measure the gender impacts of women’s engagement and participation in such projects. Developing and applying a unifying framework that considers multiple dimensions is needed to monitor and promote gender equality, equity and women’s empowerment in relation to clean cooking

(Khalifa 2023; Stritzke et al. 2023). Learning from other sectors can also be a powerful approach to discover new ideas that could help in identifying gender dimensions that have not been previously considered in the MECS sector. For example, a research team from Emory University developed a conceptual framework to inform national and global monitoring of gender equality in Water, Sanitation and Hygiene (WASH) (Caruso et al. 2021a; Caruso et al. 2021b; WHO and UNICEF 2023). The framework consists of four main domains to assess and monitor gender equality across all SDG 6 targets (see Figure 2). The first domain is related to the ability to meet WASH needs, the second domain is the ability to access resource related to the WASH sector, the third domain is the ability to exercise agency and finally the enabling environment, which includes the social, political, economic and physical environment (Caruso et al. 2021a; Caruso et al. 2021b). The WASH framework was used to 1) identify existing data sources and tools for monitoring gender dimensions, 2) identify gaps in existing data and monitoring tools, 3) identify opportunities to leverage existing data and 4) identify opportunities to collect new data to fill the gaps in gender statistics (Caruso et al. 2021a; Caruso et al. 2021b). The framework is well structured, and the domains and sub-domains are clearly presented. The WASH framework considers women’s empowerment and agency at both levels, household and public. The WASH framework also identifies the social, political, economic and environmental contexts as the enabling environment to ensure gender equality across the sector. The enabling environment is an important dimension for understanding the local contexts and tailoring solutions to fit with individuals’ needs (specifically women’s needs) to increase the adoption of MECS. Assessing and improving the enabling environment is also essential to ensure women’s participation and engagement in the MECS transition. The four main domains can be modified and applied to the MECS sector. Both sectors, the MECS and WASH provide access to basic services and bring significant social, economic and environmental benefits for communities, specifically for women and girls.

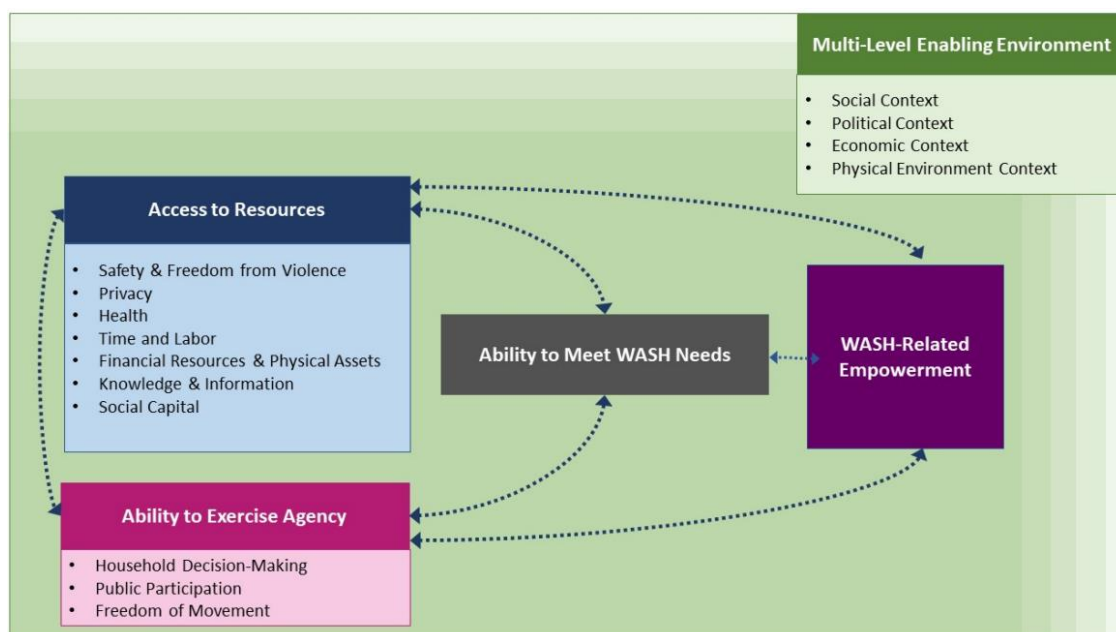


Figure 2: Conceptual framework of dimensions of gender equality related to WASH (Caruso et al. 2021a).

6. Approach to develop a gender analysis framework for the MECS sector

The following approach was applied to develop the gender equality, equity and women's empowerment framework for the MECS sector.

Stage 1:

1. Identifying the gender dimensions in the MECS sector. The social measurement domains and the four domains of the WASH framework (see section 5) were mapped with SDG 5 and SDG 7 interlinkages (see section 4) to identify the gender dimensions in the MECS sector. The social measurement domains and the 4 domains of the WASH framework are strongly aligned with SDG 5 and SDG 7 interlinkages, apart from one sub-domain 'privacy' was excluded as it is not related to the MECS sector.
2. Organizing and structuring the identified dimensions into a framework that consists of 4 main domains and 13 sub-domains.
3. Identifying measurable indicators to monitor and assess progress made in each domain and sub-domain. Indicators and survey questions were influenced by the CCA and ICRW [Social Measurement Tool](#), Regulatory Indicators for Sustainable Energy ([RISE](#)), Women's Empowerment in Agriculture Index ([WEAI](#)), and the national, regional and global [tools and measures](#) that were used to assess gender equality in the WASH sector (Caruso et al. 2021c).
4. Designing survey questions for primary data collection to assess each domain and sub-domain and measure progress of gender equality and equity in the MECS sector.

Stage 2:

5. Reviewing gender/clean cooking/household statistics (national and global) to identify data gaps and opportunities to leverage existing data to monitor gender equality and equity in the MECS sector.
6. Identifying means of implementation and develop a capacity-building plan to apply the framework and promote gender equality, equity and women's empowerment in the MECS sector.
7. Assessing case studies using the MECS gender equality and equity framework.
8. Applying and testing the framework on selected case studies.

Ongoing: conducting interviews with project developers and MECS stakeholders to better understand the challenges of promoting gender equality, equity and women's empowerment and measuring the gender co-benefits of the MECS projects.

This report will focus on Stage 1 only and Stage 2 will be presented in a separate report.

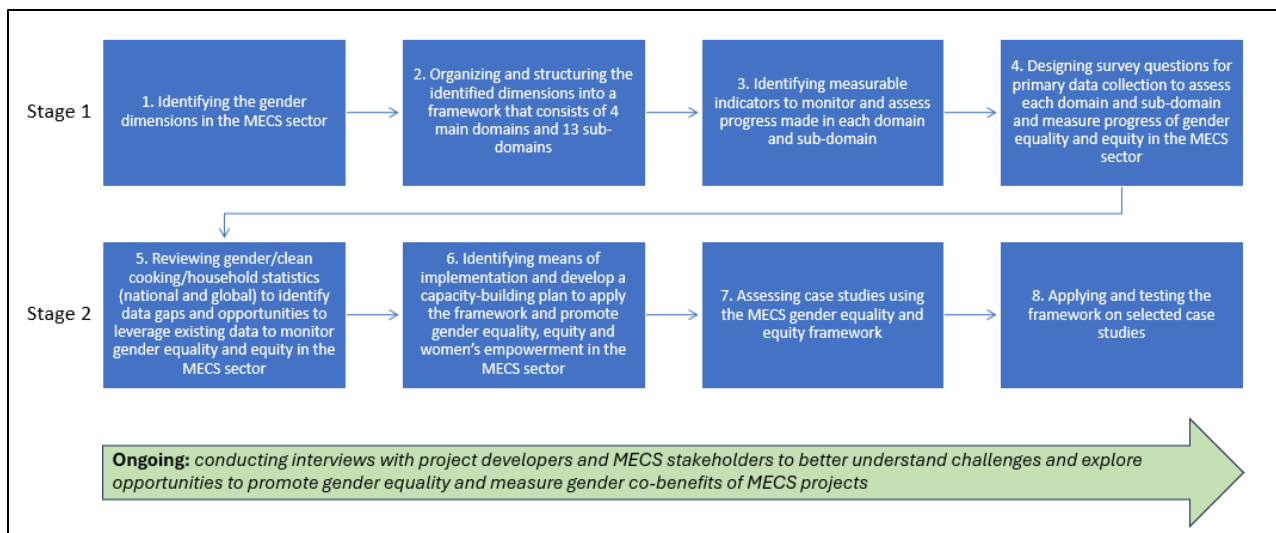


Figure 3: Steps towards developing the gender equality, equity, and women's empowerment framework for the MECS sector.

7. A unifying framework to assess and monitor gender equality, equity and women's empowerment in the MECS sector

The proposed framework is based on the Social Measurement Tool that was developed by the Clean Cooking Alliance (CCA) and the International Centre on the Research for Women (ICRW) to measure social impacts of clean and/or efficient cookstoves (CCA and ICRW, 2016) and the conceptual framework that was developed to monitor and achieve gender equality and equity in the WASH sector (Caruso et al. 2021a; Caruso et al. 2021b). The Social Measurement domains and the WASH domains were mapped with SDG 5 and SDG 7 interlinkages (UNDESA 2022) to identify the gender dimensions in the MECS sector (see Figure 4).

7.1. Gender dimensions in the MECS sector

The gender dimensions are organized and structured into four interconnected domains (see Figure 5):

- **Domain 1: ability to access modern energy cooking services (MECS):** equity of access to MECS – understand individuals different needs and provide appropriate solutions that fit with their needs.
- **Domain 2: access to MECS-related resources such as:** 1) time and labour, 2) safety and freedom from violence, 3) health and well-being, 4) knowledge, information and technologies, 5) financial resources and physical assets, and 6) social capital. The adoption of MECS can deliver co-benefits (resources) for women, for example, MECS can reduce the burden of fuel collection, reduce the risk of gender-based violence during firewood collection and gender-based domestic violence, reduce health risks and exposure to air pollution linked to traditional cooking fuels and stoves, improve women's well-being, save time spent on unpaid tasks related to fuel collection, preparation and cooking enhancing women's control over time and labour, unlock opportunities for women to engage in productive economic activities, education and employment, and improve access to knowledge, information and technologies related to MECS. Health includes physical, mental, and social well-being as they affect and are affected by cooking fuel/MECS. Health can be viewed as both an outcome of cooking fuel/MECS, such as illness linked to traditional cooking systems, and as a resource for accessing cooking fuel/MECS, such as the physical ability to walk and access cooking fuel/MECS.
- **Domain 3: ability to exercise agency:** 1) the ability to participate in household decision-making related to MECS (the ability to participate in household decision-making that could be directly or indirectly related

to MECS and other factors that can have a significant impact on the level of involvement and decision-making power within households), 2) the ability to participate and influence decisions at public level, participate in MECS income-generating activities, employment and leadership positions, etc., and 3) freedom of movement: a) the ability to move freely to access MECS such as distribution centres, repairs and maintenance facilities, etc., and b) the ability to access resources related to MECS such as participating in public activities, attending meetings and events, training sessions, and participating in income-generating activities, etc.

- Domain 4: multi-level enabling environment:** the enabling environment can facilitate or hinder individuals’ ability to access modern energy cooking services (MECS) and MECS-related resources, employment, and leadership positions as well as their participation the MECS transition. 1) The social context focuses on understanding the impacts/power of relationships, interactions, and inter-group dynamics and social rules that can support or hinder women’s access to MECS and MECS-related resources, as well as their participation in the MECS transition. 2) The Policy context focuses on assessing the legal structures, including laws and policies, budgets, and local leadership that can influence the realization of individuals’ rights to access MECS and MECS-related resources, and participation in the MECS sector as agents of change at household and organization levels. 3) The economic context focuses on understanding the physical market places and systems – can be an enabling environment in which individuals can access MECS goods and services that they need, as well as participate for economic benefit. 4) The environmental context focuses on assessing the physical environment in which individuals move and operate, it can either be enabling, offering individuals safe and accessible conditions, or it can be a barrier, preventing them from accessing MECS and MECS-related resources, including public participation such as attending events, meetings and training sessions related to the MECS sector. Therefore, understanding and improving the enabling environment is crucial to ensure access to MECS and women’s participation and engagement in the MECS transition.

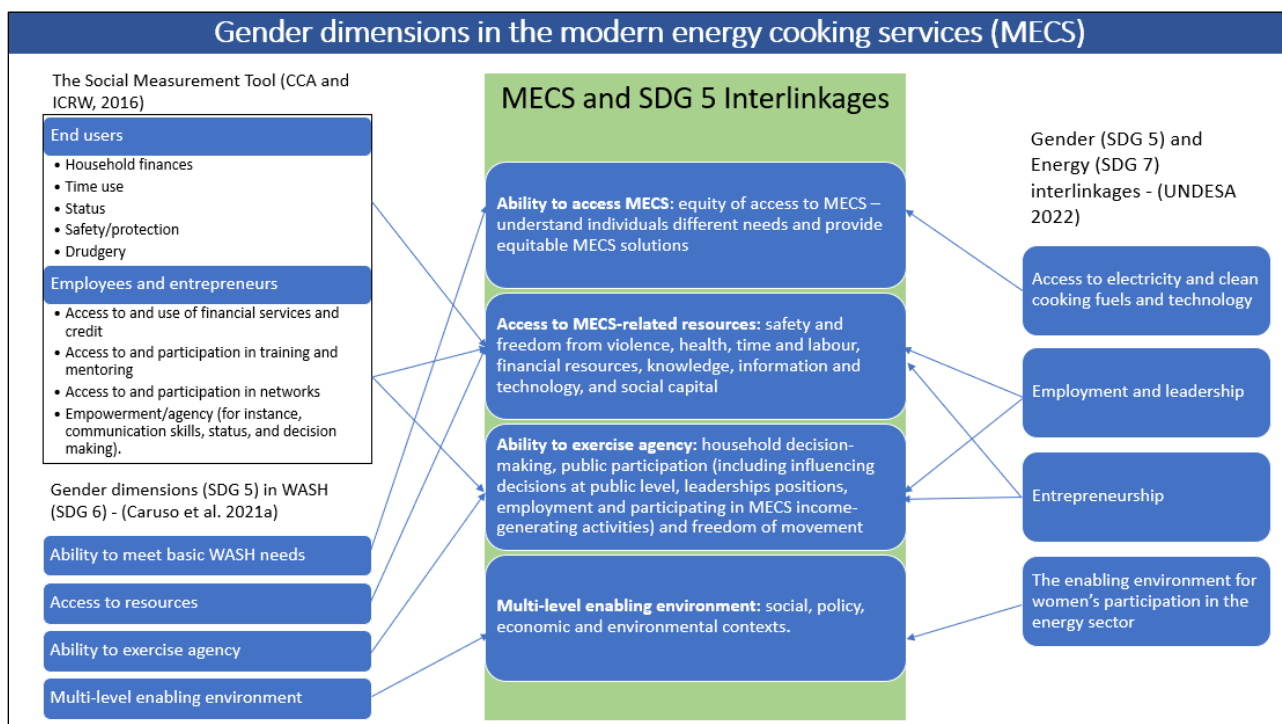


Figure 4: Gender dimensions in the MECS sector.

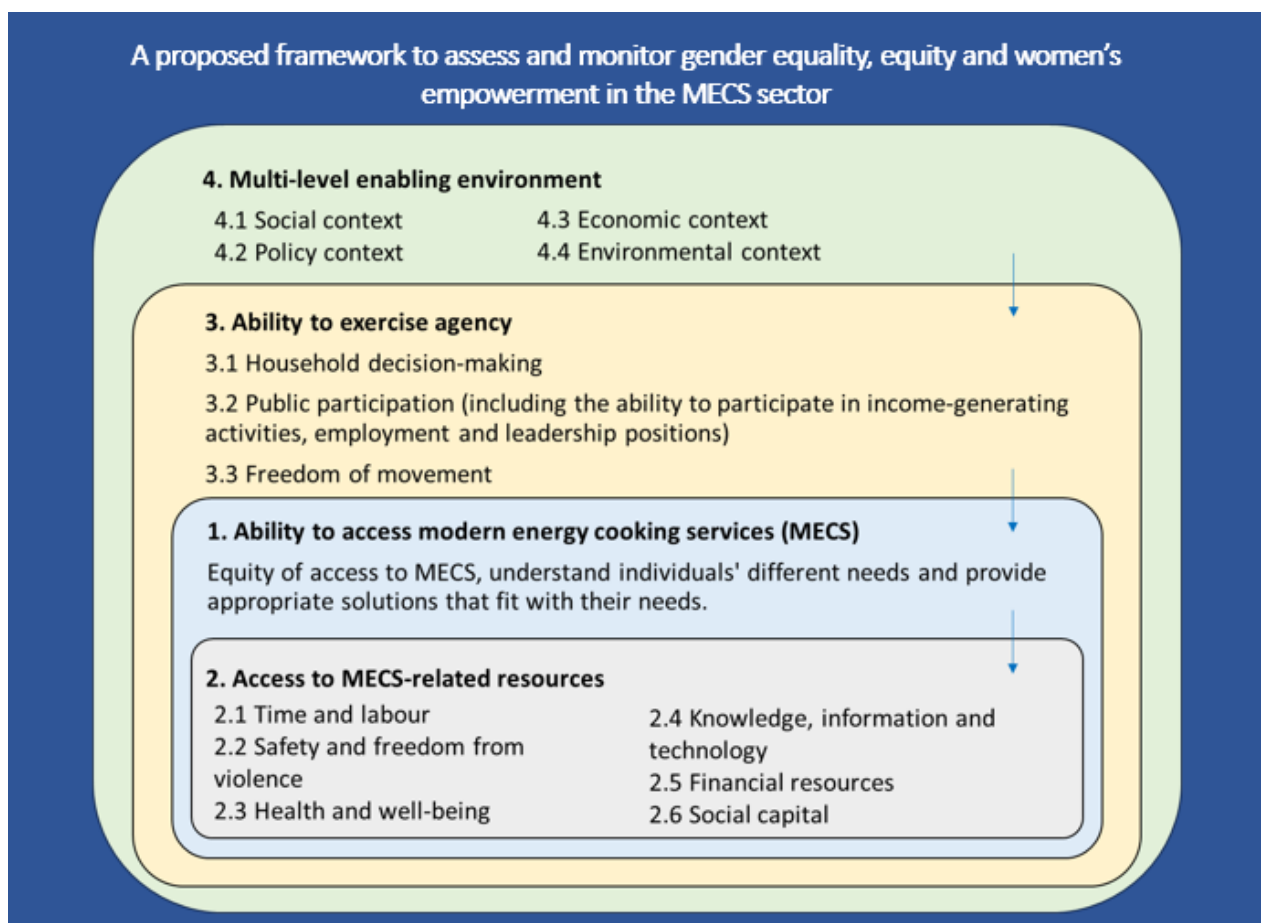


Figure 5: A proposed framework to assess and monitor gender equality, equity and women's empowerment in the MECS sector - adapted from CCA and ICRW Social Measurement Tool and the WASH framework.

7.2. Indicators to assess and monitor progress on gender equality, equity and women's empowerment in the MECS sector

Indicators and survey questions have been developed to assess and monitor progress on each domain and sub-domain at household level and organization level. Indicators and survey questions were influenced by the CCA and ICRW [Social Measurement Tool](#), Regulatory Indicators for Sustainable Energy ([RISE](#)) (focused only on clean cooking gender-specific indicators), Women's Empowerment in Agriculture Index ([WEAI](#)), and the national, regional and global [tools and measures](#) that were used to assess gender equality in the WASH sector (Caruso et al. 2021c).

Indicators and survey questions for household level

- These indicators and surveys can be used to assess and measure the gender impacts of using MECS at the household/end users level. Data must be collected before and after the introduction of MECS to measure progress made on each domain and sub-domain.

Who can use the household indicators and survey questions?

- Project developers can use household indicators and survey questions to assess and measure the gender impacts of their projects on end users.
- MECS-related organizations who are interested to assess and measure gender impacts on end users.

- Investors or donors can use these indicators to compare between projects and decide which projects they are interested to invest in.

Indicators and survey questions for organization level

- These indicators and survey questions can be used to assess and monitor gender equality, equity and women’s empowerment within MECS-related projects/organizations (understand the gender impacts on employees, entrepreneurs, etc.). Data must be collected regularly to measure progress made on each domain and sub-domain
- Some of these indicators and surveys can be also used to assess and measure the gender impacts of using MECS at the workplace (for example, employees who use MECS to cook their own meals at the workplace or cook for others such as schools, hospitals, canteens, restaurants, etc.). Data must be collected before and after the introduction of MECS to measure progress made on each domain and sub-domain.

Who can use the organization indicators and survey questions?

- Project developers who are interested in measuring and assessing the gender impacts on employees.
- MECS-related organizations who are interested to assess and measure gender impacts on employees or entrepreneurs.
- Investors or donors can use these indicators to compare between projects and decide which projects they are interested to invest in.

7.2.1. Domain 1: Ability to access modern energy cooking services (MECS)

This domain mainly focuses on assessing the availability, accessibility, and affordability of MECS, as well as repairs and maintenance services to ensure that MECS are designed to meet individuals’ needs and provide adequate services at the household and organizational levels.

Household level

- *Indicator 1.1:* Proportion of household-heads with primary reliance on modern energy cooking services by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.) of household head - (aligned with indicator SDG 7.1.2)

Organization level

- *Indicator 1.2:* Proportion of employees (paid/unpaid) who have access to modern energy cooking services at the workplace by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.). This indicator considers employees who use MECS to cook their own meals or cook for others (e.g., schools, hospitals, canteens, restaurants, etc.).

Survey questions cover the following measures to assess domain 1

1. Physical accessibility to access cooking fuel/MECS (location and distance).
2. Availability of distribution centres, repairs and maintenance facilities.
3. Affordability to access cooking fuel/MECS, and repairs and maintenance services.

4. Perceived quality of and/or satisfaction with cooking fuel/MECS, and repairs and maintenance services.

Survey questions for Domain 1: Ability to access modern energy cooking services (MECS) (see Appendix 1).

7.2.2. Domain 2: Access to MECS-related resources

This domain focuses on assessing the ability to access resources related to MECS such as time and labour, safety and freedom of violence, health and well-being, knowledge, information and technologies, financial resources and social capital.

7.2.2.1. Sub-domain 2.1: Time and labour

This sub-domain focuses on assessing individuals' time and labour spent on - paid or unpaid - cooking fuel/MECS-related tasks and activities, as well as satisfaction with and control over time and labour spent at the household and organizational level.

Household level

- *Indicator 2.1.1:* Proportion of time spent on - paid and unpaid - cooking fuel/MECS-related tasks and activities (disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.)
- *Indicator 2.1.2:* Proportion of end users who reported a reduction in household chores as a result of access to MECS (disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.)

Organization level

- *Indicator 2.1.3:* Proportion of time spent on - paid and unpaid - cooking fuel/MECS-related tasks and activities at the workplace (disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.)
- *Indicator 2.1.4:* Proportion of employees who reported a reduction in workload as a result of access to MECS (disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.)

Survey questions cover the following measures to assess sub-domain 2.1

1. Time spent on cooking fuel/MECS-related tasks and activities.
2. Time spent on repairs and maintenance of cookstoves/EPCs.
3. Labour delegation for cooking and cooking fuel/MECS-related chores.
4. Control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities.
5. Time spent on activities with possible cooking fuel/MECS implications.
6. Labour delegation for household chores with possible cooking fuel/MECS implications.

Survey questions for Domain 2: Access to MECS-related resources: Sub-domain 2.1: Time and labour (see Appendix 2).

7.2.2.2. Sub-domain 2.2: Safety and freedom of violence

This sub-domain focuses on assessing individuals' freedom from gender-based violence and gender-based domestic violence, including physical, sexual, and verbal abuse, as well as harassment linked to cooking, cooking fuel collection, or MECS-related tasks and activities at household and organizational level.

Household level

- *Indicator 2.2.1:* Number of cases of gender-based violence and gender-based domestic violence reported to local authorities that are linked to cooking, cooking fuel collection or MECS-related tasks and activities (disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.). Data to be collected before and after the introduction of MECS.

Organization level

- *Indicator 2.2.2:* Number of cases of gender-based violence reported to local authorities that are linked to cooking, cooking fuel collection or MECS-related tasks and activities (disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.). Data to be collected before and after the introduction of MECS.

Survey questions cover the following measures to assess sub-domain 2.2

1. Perception of safety (i.e., feeling safe/fear linked to cooking, cooking fuel collection, or MECS-related tasks and activities).
2. Perceived risk of physical/sexual/verbal abuse linked to cooking, cooking fuel collection, or MECS-related tasks and activities.
3. Experiences of physical/sexual/verbal abuse linked to cooking, cooking fuel collection, or MECS-related tasks and activities.
4. Ability to report safety concerns, and sexual exploitation linked to cooking, cooking fuel collection, or MECS-related tasks and activities.

Survey questions for Domain 2: Access to MECS-related resources, Sub-domain 2.2: Safety and freedom of violence (see Appendix 3).

7.2.2.3. Sub-domain 2.3: Health and well-being

Health includes physical, mental, and social well-being as they affect and are affected by cooking fuel/MECS. Health can be viewed as both an outcome of cooking fuel/MECS, such as illness linked to traditional cooking systems, and as a resource for accessing cooking fuel/MECS, such as the physical ability to walk and access cooking fuel/MECS.

Household level

- *Indicator 2.3.1:* Reductions in PM_{2.5} and carbon monoxide (CO) concentration (can be measured using the Gold Standard methodology [Gold Standard developed a methodology](#)).
- *Indicator 2.3.2:* Number of Averted Mortality and Disability Adjusted Life Years ([ADALYs](#)) – aligned with SDG 3.9.1 indicator. The [Gold Standard developed a methodology](#) that can be used to estimate this indicator i.e. estimate ADALYs by measuring PM_{2.5}/CO kitchen concentrations, but the methodology

needs to be updated to collect disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.).

- *Indicator 2.3.3:* Proportion of end users who visited medical facilities/dispensary for treatment of respiratory issues etc. such as cough, shortness in breath and pneumonia, or any other respiratory issues or burns and injuries – ([Gold Standard SDG Impact Tool](#)) – related to cooking with traditional fuels, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Organization level

- *Indicator 2.3.4:* Proportion of employees who visited medical facilities/dispensary for treatment of respiratory issues etc. such as cough, shortness in breath and pneumonia, or any other respiratory issues or burns and injuries - related to cooking with traditional fuels at their workplace, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Survey questions cover the following measures to assess sub-domain 2.3

1. Perceived illness or experience of illness related to cooking with polluting fuels/or any other cooking fuels.
2. Fear of harm from others while collecting traditional cooking fuel or accessing MECS.
3. Fear of injury while collecting or cooking with traditional cooking fuel/MECS.
4. Experience of injury while collecting or cooking with traditional cooking fuel/MECS.
5. Mental wellbeing related to insecurity of cooking fuel/MECS.
6. Impact of health on ability to access cooking fuel/MECS.
7. Health concerns with possible cooking fuel/MECS implications.
8. Experience of injury with possible cooking fuel/MECS implications.

Survey questions for Domain 2: Access to MECS-related resources, Sub-domain 2.3: Health and well-being (see Appendix 4).

7.2.2.4. Sub-domain 2.4: Knowledge, information and technology

This sub-domain focuses on assessing the ability to access knowledge, information and technologies related to modern energy cooking services, repairs and maintenance, understanding the environmental, health and gender impacts of traditional cooking fuels, cooking different types of dishes using EPCs/or any other eCookers, etc. Access to knowledge and information is important to make better and informed decisions about cooking fuels/MECS. Identifying sources of knowledge and information and how people are influenced and by whom is also important because it can have a significant impact on their decisions. Additionally, tracking flows of information can help service providers or promoters to raise awareness by using these existing networks that can potentially accelerate access to MECS and reduce gender inequalities of such services (see Figure 6) (Batchelor 2022).

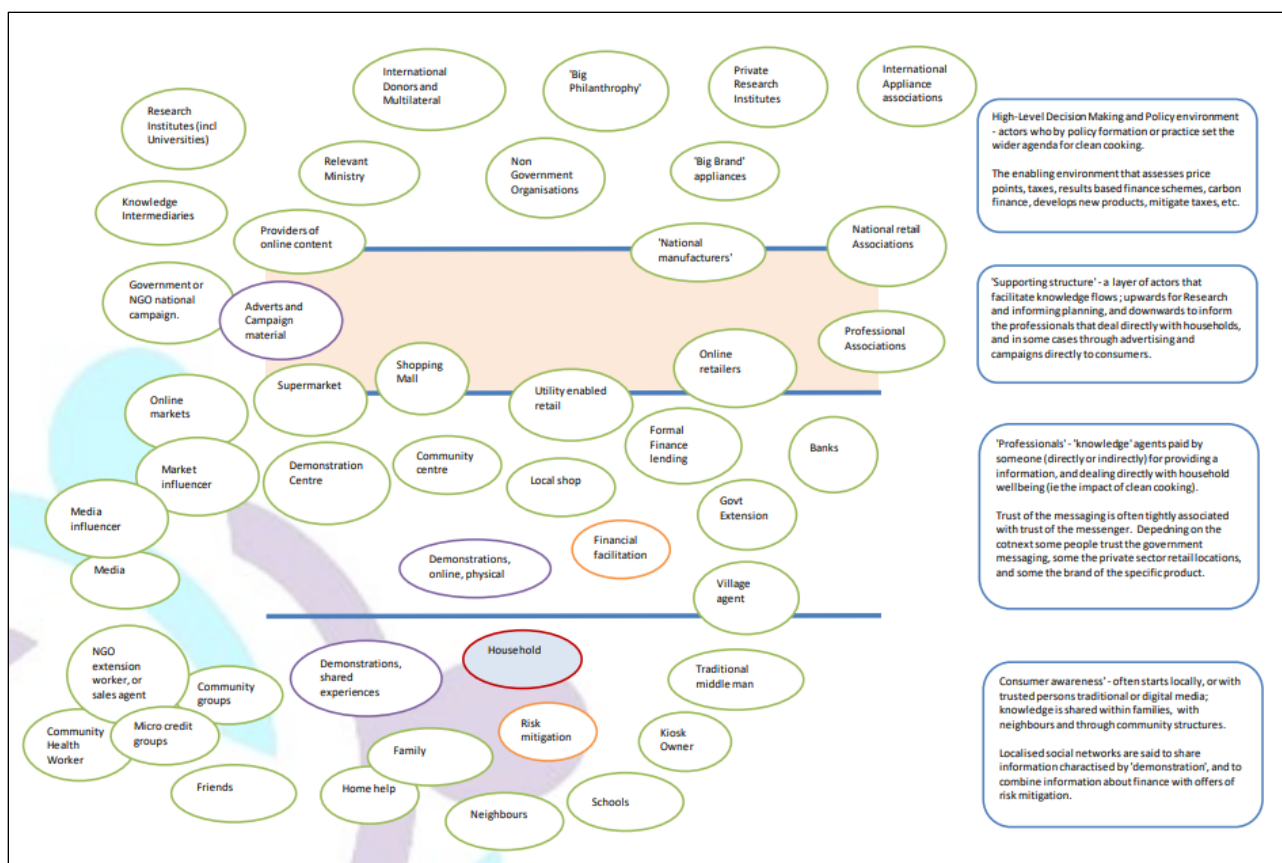


Figure 6: Consumer actor networks (Batchelor 2022).

Household level

- *Indicator 2.4.1:* Proportion of end users who have received technical training related to maintaining or repairing cookstoves, EPCs, etc., disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.4.2:* Proportion of end users who have received financial and job skills training to facilitate income-generation activities related to MECS, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.4.3:* Proportion of end users who have access to knowledge, information and technologies related to MECS that is publicly available and easily accessible, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.4.4:* Number of awareness campaigns promoting MECS that target all community members regardless of their gender identity and socio-economic status.

Organization level

For employees who use MECS technologies to prepare their own meals or cook for other people) -

- *Indicator 2.4.5:* Proportion of employees who have received technical training related to maintaining or repairing cookstoves, EPCs, etc. disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

- *Indicator 2.4.6:* Proportion of entrepreneurs who have received financial and job skills training to facilitate income-generation activities related to MECS, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.4.7:* Proportion of employees who have access to knowledge, information and technologies related to MECS that is publicly available and easily accessible, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.4.8:* Number of awareness campaigns promoting MECS that target all employees regardless of their gender identity and socio-economic status.

Survey questions cover the following measures to assess sub-domain 2.4

1. Access to knowledge, information and technologies related to advantages and disadvantages of cooking fuels, health, gender and environmental impacts, types of clean cooking fuels, MECS, citizen’s rights, etc. (Awareness campaigns).
2. Knowledge related to maintaining or repairing cookstoves, EPCs, etc.
3. Financial and market literacy, and job skills (including technical skills) to facilitate income-generation activities.
4. Transparency in MECS service delivery for consumers including information about services providers, distribution centres, repairs and maintenance facilities, electricity tariffs, quality, and standards of cookstoves, EPCs, etc.
5. Sources of knowledge and information.

Survey questions for Domain 2: Access to resources related MECS, Sub-domain 2.4: Knowledge, information and technologies (*see Appendix 5*).

7.2.2.5. Sub-domain 2.5: Financial resources

This sub-domain focuses on assessing individuals’ control over economic/financial resources to access MECS to meet their own or household needs, the ability to access financial assistance to access MECS and the ability to access financial resources to invest in the MECS sector.

Household level

- *Indicator 2.5.1:* Total payments made to household-head receiving financial assistance to access MECS, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.5.2:* Percentage of household-head’s income spent on MECS, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.5.3:* Proportion of household-head who have access to formal/informal credit from different sources (banks, financial institutions, government, and non-government funds) or government/non-government subsidies for investing in setting up/managing a large or small-scale MECS-related industry and enterprise, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Organization level

- *Indicator 2.5.4:* Total payments made to assist entrepreneurs in setting up/managing a large or small-scale MECS-related business, industry or enterprise, disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.5.5:* Proportion of entrepreneurs having a sustainable income from MECS by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.5.6:* Proportion of employees in MECS-related employment by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 2.5.7:* Average monthly/annual income of employees in MECS-related employment by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Survey questions cover the following measures to assess sub-domain 2.5

1. Cost of cooking fuel/MECS.
2. Ownership of physical assets (small consumer durables (radio, cookware, etc.).
3. Access to sufficient funds to access cooking fuel/MECS.
4. Perceived affordability of MECS products and services.
5. Willingness to pay for MECS products or services.
6. Distribution of MECS-related costs within the household.
7. Control over resources for MECS access.
8. Access to financial assistance including loans and subsidies to invest in MECS.
9. Earning an income from MECS.
10. Control over resources with possible MECS implications.

Survey questions for Domain 2: Access to MECS-related resources, Sub-domain 2.5: Financial resources (see Appendix 6).

7.2.2.6. Sub-domain 2.6: Social capital

This sub-domain focuses on assessing individuals' participation and involvement in social groups/networks/organizations that support individuals and facilitate accessing cooking fuel or modern energy cooking services. In some cases, social groups can extend their support to facilitate accessing cooking fuel/MECS in local institutions such as schools, hospitals, community centres, churches, mosques, etc.

Household level

- *Indicator 2.6.1:* Proportion of end users who are members in a MECS-related community group by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Survey questions cover the following measures to assess sub-domain 2.6

1. Cooking fuel/MECS-related community groups.
2. Social support to facilitate accessing cooking fuel/MECS needs.
3. Social support for accessing cooking fuel/MECS information.
4. Social support for improving cooking fuel/MECS.
5. Social support to facilitate cooking fuel/MECS-related decision-making and/or leadership.
6. Community groups with possible cooking fuel/MECS implications.

Survey questions for Domain 2: Access to MECS-related resources, Sub-domain 2.6: Social capital (*see Appendix 7*).

7.2.2.7. Domain 3: Ability to exercise agency

This domain focuses on assessing the ability of individuals to participate in decision-making related to MECS at household and organization levels and it also assesses the ability to move freely to access MECS and/or participate in MECS related public activities.

7.2.2.8. Sub-domain 3.1: Household decision-making

Understanding the intrahousehold dynamics regarding decision-making on aspects that could be directly or indirectly related to MECS is important to assess the level of involvement in decision-making and the ability to exercise agency within the household. As mentioned previously, the 4 domains and sub-domains are interconnected, some of these aspects have been considered in other domains and survey questions. However, understanding and assessing the level of participation in decision-making and how decisions are made whether sole or joint decisions at household level is key for individuals' (specifically women) ability to access MECS and their ability to participate in MECS transition. This starts from the ability to make decisions within the household as a first step and then the ability to exercise agency at public level. Identifying sources of knowledge and information and how people are influenced and by whom is also important because it can have a significant impact on their decisions (see section 7.2.2.4). Therefore, this sub-domain focuses on assessing the ability to participate in household decision-making related to or have implications on cooking fuels/MECS and other factors that can have a significant impact on the level of involvement and decision-making power within households. For example: the ability to contribute to household decision-making on MECS purchases and the use of services, control over decisions regarding repairs and maintenance of cookstoves/EPCs, control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities, sources and access to information to make informed decisions related to cooking fuel/MECS, the ability to make sole or joint decisions on household large purchases, food purchases (for daily food consumption), types of food being cooked, control over household income and expenditures, control over decisions related to loans and borrowing money/items and how to use money/items borrowed, ownership of assets and control over household assets and resources, control over time use and time spent on household chores and satisfaction with the available time for other activities such as income-generation, education or leisure activities, control over decisions related to visiting important places (such as markets, bazars, family and relatives, community centres, health services, hospitals, public gatherings, etc.), control over decisions related to attending in-person or online training sessions, control over decisions related to joining or being an active member in social, economic or any other community groups, etc.

Household level

- *Indicator 3.1.1:* Proportion of end users who make the decisions for new cooking equipment or fuels (disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc).

Survey questions cover the following measures to assess sub-domain 3.1

1. General household decision-making related to cooking fuels/MECS.
2. Control over decisions related to cooking fuels/MECS purchases.
3. Control over decisions regarding repairs and maintenance of cookstoves/EPCs.
4. Control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities.
5. Control over household income and expenditures, may have cooking fuels/MECS implications (sole or joint decision-making over income and expenditures).
6. Sources and access to knowledge and information that is important for making informed decisions related to cooking fuels/MECS.
7. Control over time use and time spent on household chores and satisfaction with the available time for other activities such as income-generation, education or leisure activities.
8. Control over household assets and resources.
9. Control over decisions related to large purchases (sole or joint decision-making over large purchases).
10. Control over decisions related to food purchases (food for daily consumption or other household needs).
11. Control over decisions related to the types of food being cooked (sole or joint decisions related to cooking specific types of dishes).
12. Control over decisions related to visiting markets, bazars, family and relatives, community centres, health service, public gatherings, etc. (can go out alone with or without permission, alone with or without restrictions, alone with family members, children, etc., pay your own transportation costs, or can go out alone but you must wear certain clothes).
13. Control over decisions related to attending in-person or online training sessions.
14. Control over decisions related to borrowing money or items from relatives, friends, NGOs, banks, financial institutions, formal or informal lenders.
15. Control over decisions on how to use money or items borrowed from relatives, friends, NGOs, banks, financial institutions, formal or informal lenders.

Survey questions for Domain 3: Ability to exercise agency, Sub-domain 3.2: Household decision-making (see Appendix 8).

7.2.2.9. Sub-domain 3.2: Public participation

Public participation refers to individuals' ability to participate in cooking fuel/MECS-related public activities, including participating and influencing decisions at a public level, participating in committees, employment and leadership positions, and participating in cooking fuel/MECS-related income-generating activities. Cooking with traditional fuels may also restrict women's public participation due to the amount of time spent on firewood collection, preparation, and cooking.

Household level

- *Indicator 3.2.1:* Proportion of consumers' (or end users') memberships with position and responsibility in local or community-based committees related to cooking fuel/MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 3.2.2:* Proportion of consumers (or end users') members with positions who participate in decision-making meetings in local or community-based committees related to cooking fuel/MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 3.2.3:* Number of gender-specific decisions adopted resulting from contributions made by members in local or community-based committees related to cooking fuel/MECS.
- *Indicator 3.2.4:* Proportion of consumers (or end users) who received financial and technical training related to cooking fuel/MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 3.2.5:* Annual budget allocated and spent on technical and financial training related to cooking fuel/MECS.

Organization level

- *Indicator 3.2.6:* Proportion of employees/members with position and responsibility in formal and informal institutions, or other decision-making structures for managing cooking fuel/MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 3.2.7:* Proportion of employees/members who participate in decision-making meetings in formal and informal institutions, or other decision-making structures for managing cooking fuel/MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 3.2.8:* Number of gender-specific decisions adopted resulting from contributions made by employees or members in formal and informal institutions, or other decision-making structures for managing cooking fuel/MECS.
- *Indicator 3.2.9:* Proportion of employees in cooking fuel/MECS-related employment public or private sector disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 3.2.10:* Proportion of employees in job skills training related to cooking fuel/MECS, including training for technical and managerial roles disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 3.2.11:* Annual budget allocated and spent on technical, financial, leadership and managerial training for employees in cooking fuel/MECS-related employment public or private sector.
- *Indicator 3.2.12:* Percentage of suppliers/partners that are women led businesses and/or have a gender-balanced workforce.

Survey questions cover the following measures to assess sub-domain 3.2

1. Opportunities for participation in cooking fuel/MECS-related groups.
2. Representation in cooking fuel/MECS-related groups.
3. Leadership in cooking fuel/MECS-related groups.
4. Voice/influence in cooking fuel/MECS-related groups.
5. Participation in cooking fuel/MECS-related community activities/meetings.
6. Leadership in cooking fuel/MECS-related community activities/meetings.
7. Voice/influence in cooking fuel/MECS-related community activities/meetings.
8. Participation in high-level cooking fuel/MECS sector positions or governance.
9. Participation in cooking fuel/MECS-related income-generating activities.
10. Impact of cooking with traditional fuels (including fuel collection and preparation) or the use of MECS on individuals' ability to participate in public life such as work, school, social activities, etc.
11. Representation in groups with possible cooking fuel/MECS implications.
12. Participation in community activities/meetings with possible cooking fuel/MECS implications.
13. Voice in community activities/meetings with possible cooking fuel/MECS implications.

Survey questions for Domain 3: Ability to exercise agency, Sub-domain 3.2: Public participation (see Appendix 9).

7.2.2.10. Sub-domain 3.3: Freedom of movement

- Restrictions on freedom of movement can affect individuals' ability to access modern energy cooking services (MECS) such as distribution centres, markets, repairs and maintenance facilities, etc., and the ability to access resources related to MECS such as participating in public activities, attending meetings and events, training sessions, and participating in income-generating activities, etc.
- It's important to assess individuals' freedom of movement at the household and organization levels because project developers will then be able to tailor solutions that fit with the social context. For example, in a community where women's movement is restricted delivery options can be provided. Project developers can also provide online training sessions for end users and employees to ensure women's engagement and participation at the household and organization levels.

Household level

- *Indicator 3.3.1:* Proportion of consumers/end users who can move freely to access MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 3.3.2:* Proportion of consumers/end users who can move freely to participate in MECS-related public activities, meetings and events, training sessions, and participate in income-generating activities disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Organization level

- *Indicator 3.3.3:* Proportion of employees who can move freely to access MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc. This indicator considers employees who use MECS to cook their own meals or cook for others (e.g., schools, hospitals, canteens, restaurants, etc.).
- *Indicator 3.3.4:* Proportion of employees or members of formal and informal institutions who can move freely to participate in MECS-related public activities, meetings and events, training sessions, and participate in income-generating activities disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc. This indicator considers employees who use MECS to cook their own meals or cook for others (e.g., schools, hospitals, canteens, restaurants, etc.).

Survey questions cover the following measures to assess sub-domain 3.3

1. Ability to access modern energy cooking services (MECS) and the ability to move freely to access MECS such as distribution centres, repairs and maintenance facilities, etc.
2. Ability to access resources related to MECS and participate in public activities, meetings and events, training sessions, and participate in income-generating activities.

Survey questions for Domain 3: Ability to exercise agency, Sub-domain 3.3: Freedom of movement (*see Appendix 10*).

7.2.3. Domain 4: Multi-level enabling environment

This domain focuses on understanding and assessing the contextual factors (such as social, policy, economic, and environmental contexts) at multiple levels (household, community, regional or national) that can facilitate or hinder individuals' ability to access modern energy cooking services (MECS) and resources, as well as their participation and engagement in the MECS sector.

7.2.3.1. Sub-domain 4.1: Social context

This sub-domain focuses on understanding and assessing the impacts/power of relationships, interactions, and inter-group dynamics and social rules (including social inclusion, social cohesion, social norms, and community solidarity) that can support or hinder individuals' ability to access modern energy cooking services (MECS) and MECS-related resources, as well as their participation and engagement in the MECS sector as agents of change. These elements must be considered in assessing the enabling environment to improve individuals' access to MECS and promote gender equality in the MECS sector. No indicators are developed for the social context; however, the survey questions can assist in understanding the social context to develop context-based solutions.

Survey questions cover the following measures to assess sub-domain 4.1

1. Social harmony.
2. Shared goals.
3. Group solidarity.
4. Social inclusion.
5. Cultural beliefs.

6. Norms (cooking fuel/MECS-related practices and cooking preferences, labour, decision-making, and community participation).
7. Identifiers of social position.
8. Social harmony with possible cooking fuel/MECS implications.
9. Group solidarity with possible cooking fuel/MECS implications.
10. Attitudes toward women.
11. Norms and attitudes around group participation.

Survey questions for Domain 4: Multi-level enabling environment, Sub-domain 4.1: Social context (*see Appendix 11*).

7.2.3.2. Sub-domain 4.2: Policy context

This sub-domain focuses on assessing the legal structures, including laws and policies, budgets, and local leadership that can influence the realization of individuals' rights to access MECS and resources, and ensure individuals' participation and engagement in the MECS sector as agents of change at household and organization levels.

Household level

- *Indicator 4.2.1:* Public financial resources spent in ensuring access to MECS US\$ per capita – disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.2.2:* Percentage of national, sub-national and sectoral budget allocations for integrating gender equality in the MECS policy frameworks (if MECS policy already exists)
- *Indicator 4.2.3:* Percentage of consumers who have access to mechanisms for redressal of complaints (such as technical, billing, repairs); effectiveness and promptness of redressals; and processes for contribution to decision-making and feedback regarding MECS service delivery disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.2.4:* Reports of discrimination in access to cooking fuel/MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.2.5:* Evidence of cooking fuel/MECS-related policies in the MECS sector or other sectors that recognise the special and differentiated MECS-related needs of individuals' regardless their gender and social identity.
- *Indicator 4.2.6:* Evidence of state ratification, commitments and implementation of actions, related to ensure that cooking fuels/MECS are made accessible to all the population especially the most vulnerable and disadvantaged groups, and women.
- *Indicator 4.2.7:* Evidence for coordination between (a) national ministries that are involved in the MECS sector, (b) public/private utilities and commissions for MECS-related services, with the national ministry/agency for individuals' welfare, and actions taken to improve MECS for consumers as a result of this coordination.

- *Indicator 4.2.8:* Number and percentage of regional, national, sub-national and sectoral cooking fuel/MECS-related policy frameworks that are gender sensitive/responsive/transformational and status of implementation (such as planning phase, early implementation, and full implementation).
- *Indicator 4.2.9:* Number of programmes and projects that collect and analyse gender-disaggregated data on economic and livelihoods data of local populations when planning for national, sub-national and sectoral cooking fuel/MECS programmes and projects.
- *Indicator 4.2.10:* Number and percentage of national, sub-national and sectoral MECS projects that integrate quantitative and qualitative gender-specific outcomes, results and impact indicators in monitoring and evaluation (M&E) systems; accountability mechanisms; and status of achievement/non-achievement of these outcomes and results with reasons.
- *Indicator 4.2.11:* Number and type of gender sensitization, awareness-raising events, campaigns, or communication materials promoted through media and made available to the community; by public/private agencies – (awareness campaigns related to the MECS sector/services).
- *Indicator 4.2.12:* Proportion of consumers/end users who are satisfied with the quality of content and method of communication used in gender sensitization, awareness-raising events, campaigns, or communication materials promoted through media and made available to the community; by public/private agencies - (awareness campaigns related to the MECS sector/services), disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Organization level

- *Indicator 4.2.13:* Proportion of employees in MECS-related employment disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.2.14:* Proportion of employees in MECS-related employment who are aware of basic issues related to gender equality and equity in the MECS sector disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.2.15:* Existence of measures for improving gender equity and redressal Mechanisms in human resources (HR) policies of (a) national ministries that are involved in the MECS sector, and (b) public/private institutions of MECS-related services; evidence of implementation of these measures, and perception of staff regarding these measures. (perception of staff - disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.2.16:* Existence and evidence of implementation of policy that allows for flexible working hours and flexible maternal and parental leave.

Survey questions cover the following measures to assess sub-domain 4.2

1. Laws and policies for MECS-related rights.
2. Budgeting and resource allocation targeted for promoting gender equality, equity and women's empowerment in the MECS sector.
3. Capacity building for embedding gender equality, equity and women's empowerment in the MECS sector.
4. Governance structures for diverse participation in the MECS sector.

5. Availability and responsiveness of local leaders.

Survey questions for Domain 4: Multi-level enabling environment, Sub-domain 4.2: Policy context (see Appendix 12).

7.2.3.3. Sub-domain 4.3: Economic context

The economic context – including both physical marketplaces and market systems – can be an enabling environment in which individuals can access MECS goods and services that they need, as well as participate for economic benefit. Ownership of mobile phones with access to internet is also important because it can facilitate access to MECS and assist in data collection process that is required to improve the quality of services and measure gender impacts.

Household level

- *Indicator 4.3.1:* Proportion of consumers/end users who have access to adequate and affordable MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.3.2:* Proportion of consumers/end users who have access to credits/subsidies/funds from different sources (banks, financial institutions, government and non-government funds) that could be used to access MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.3.3:* Proportion of households who have access to credits/subsidies/funds from different sources (banks, financial institutions, government and non-government funds) that could be used to access MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.3.4:* Annual budget allocated and spent on cooking fuel/MECS- related technical and financial training for household members.

Organization level

- *Indicator 4.3.5:* Proportion of employees in MECS-related employment, such as in a utility company or a selected ministry, private company, etc., disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.3.6:* Proportion of entrepreneurs having a sustainable income from the provision of MECS disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.3.7:* Proportion of employees in job skills training-related to the MECS sector including training for technical and managerial roles disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.3.8:* Annual budget allocated and spent on technical, leadership and managerial training for employees in cooking fuel/MECS-related employment public or private sector - US\$ per capita
- *Indicator 4.3.9:* Proportion of entrepreneurs who have access to loans/funds from different sources (banks, financial institutions, government and non-government funds) for investing in MECS-related

industries and enterprises disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Survey questions cover the following measures to assess sub-domain 4.3

1. Availability, affordability, and the ability to access modern energy cooking services (MECS).
2. MECS-related employment and job market.
3. Access to credits/subsidies/funds that could be used to access MECS.
4. Access to loans/funds that could be used to invest in the MECS sector.
5. Ownership of mobile phones with internet connections.

Survey questions for Domain 4: Multi-level enabling environment, Sub-domain 4.3: Economic context (see Appendix 13).

7.2.3.4. Sub-domain 4.4: Environmental context

This sub-domain focuses on assessing the physical environment context in which individuals move and operate. It can either be enabling, offering individuals safe and accessible conditions, or it can be a barrier, preventing them from accessing MECS and resources, including public participation such as attending events, meetings and training sessions related to the MECS sector.

Household level

- *Indicator 4.4.1:* Proportion of consumers/end users who could access MECS and resources without being restricted by the physical environment disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.4.2:* Proportion of consumers/end users who could access MECS-related meetings, events, training sessions, etc. without being restricted by the physical environment disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.4.3:* Proportion of consumers/end users who could access MECS repairs and maintenance facilities without being restricted by the physical environment disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Organization level

These indicators can be used for employees who use MECS to prepare their own meals or cook for other people (such as schools, hospitals, canteens, restaurants, etc)

- *Indicator 4.4.4:* Proportion of employees who can access MECS and resources without being restricted by the physical environment disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.
- *Indicator 4.4.5:* Proportion of employees who could access MECS-related meetings, events, training sessions, etc. without being restricted by the physical environment disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

- *Indicator 4.4.6:* Proportion of employees who could access MECS repairs and maintenance facilities without being restricted by the physical environment disaggregated data by sex, gender identity, age, ethnicity, disability, physical ability, the level of education and literacy, geographical location, occupation, income, etc.

Survey questions cover the following measures to assess sub-domain 4.4

1. Physical accessibility to MECS and resources.
2. Physical accessibility to repairs and maintenance facilities.
3. Physical accessibility to MECS-related employment, suppliers, distributions centres, etc.
4. Physical accessibility to MECS-related meetings, events, training sessions, etc. (for household or organization).
5. Aspects of the natural environment.
6. Climatic and seasonal factors.

Survey questions for Domain 4: Multi-level enabling environment, Sub-domain 4.4: Environmental context (see Appendix 14).

8. Conclusion and way forward

Recent reports and studies show that there is a significant gender gap in the energy sector and gender-specific indicators and statistics are limited. Gender-specific indicators and statistics are needed to assess and monitor progress to address the gender gap. This report proposes a framework to assess and monitor gender equality, equity and women's empowerment in the MECS sector at household and organization levels. The framework is based on the Social Measurement Tool that was developed by the Clean Cooking Alliance (CCA) and the International Centre on the Research for Women (ICRW) to measure social impacts of clean and/or efficient cookstoves (CCA and ICRW, 2016) and the conceptual framework that was developed to monitor and achieve gender equality and equity in the WASH sector (Caruso et al. 2021a; Caruso et al. 2021b). The Social Measurement domains and the WASH domains were mapped with SDG 5 and SDG 7 interlinkages (UNDESA 2022) to identify the gender dimensions in the MECS. The framework considers multiple gender dimensions and consists of 4 interconnected domains (the ability to access modern energy cooking services (MECS), the ability to access resources related to MECS, the ability to exercise agency and the enabling environment) and 13 sub-domains. Gender-specific indicators and survey questions were developed to assess and monitor progress on each domain and sub-domain. Some indicators can be used to understand the local characteristics to provide and tailor context-based MECS and improve the enabling environment while other indicators can be used to measure progress made on each domain and sub-domain.

Identifying the gender dimensions and developing the framework was the first stage of this work. The next steps will focus on 1) reviewing gender, clean cooking, household statistics (national and global) to identify data gaps and opportunities to leverage existing data to monitor gender equality and equity in the MECS sector, 2) identifying means of implementation and develop a capacity-building plan to apply the framework, 3) assessing case studies using the MECS gender equality and equity framework and finally 4) applying and testing the framework on selected case studies. Collecting data on social impacts is difficult, but there is an opportunity to test this framework to improve and refine the indicators and survey questions. Furthermore, developing a scoring system to rank projects based on their contribution to promoting gender equality in the MECS-related projects is also important to encourage project developers to address gender inequalities in

the sector. Scoring systems can also help impact buyers to compare projects and make better decisions regarding which projects they will invest in.

References

- Arthur, F. et al. 2022. *Gender Equality and Social Inclusion Seal (GESIS): A norm regulating the implementation of GESI in Mozambique's energy sector*. Available at: https://cesetproject.com/sites/default/files/GESIS%20white%20paper_FINAL.pdf [Accessed: 16 April 2024].
- ASEAN Low Carbon Energy Programme. 2022a. *Integrating a Gender Lens in Voluntary Carbon Markets: Volume II. Main Report*. Available at: <https://www.sddirect.org.uk/sites/default/files/2022-11/ASEAN%20Integrating%20gender%20into%20VCMs%20-%20Volume%20II%20-%20FINAL.pdf> [Accessed: 9 May 2023].
- ASEAN Low Carbon Energy Programme. 2022b. *Integrating a Gender Lens in Voluntary Carbon Markets — Volume I*. Available at: <https://www.sddirect.org.uk/sites/default/files/2022-11/ASEAN%20Integrating%20gender%20into%20VCMs%20-%20Volume%20I%20-%20FINAL.pdf> [Accessed: 18 April 2023].
- Baldinger, P. [no date]. *Closing gaps in women's employment in the energy sector*. Available at: https://www.energyeconomicgrowth.org/www.energyeconomicgrowth.org/sites/default/files/2020-04/ESMAP_Closing%20Gaps%20in%20Women%e2%80%99s%20Employment%20in%20the%20energy%20sector.pdf [Accessed: 17 January 2024].
- Batchelor, S. 2022. *Consumer Journey; Acquiring a Modern Energy Cooking Service*. Loughborough, UK. Available at: <https://mecs.org.uk/wp-content/uploads/2022/03/Consumer-Journey-Acquiring-a-Modern-Energy-Cooking-Service.pdf#page=24> [Accessed: 6 June 2024].
- Belmin, C., Hoffmann, R., Pichler, P.-P. and Weisz, H. 2021. Fertility transition powered by women's access to electricity and modern cooking fuels. *Nature Sustainability* 5(3), pp. 245–253. doi: 10.1038/s41893-021-00830-3.
- Canadian International Development Agency. 1997. *Guide to Gender-sensitive Indicators*. Quebec. Available at: <https://publications.gc.ca/collections/Collection/E94-266-1997E.pdf> [Accessed: 26 January 2024].
- Caruso, B.A., Conrad, A., Salinger, A., Patrick, M., Youm, A. and Sinharoy, S. 2021a. A Conceptual Framework to Inform National and Global Monitoring of Gender Equality in WASH. Available at: <https://washdata.org/sites/default/files/2021-10/jmp-2021-gender-review-conceptual-framework.pdf> [Accessed: 23 October 2023].
- Caruso, B.A., Salinger, A., Patrick, M., Conrad, A. and Sinharoy, S. 2021b. *A Review of Measures and Indicators for Gender in WASH*. Available at: <https://washdata.org/sites/default/files/2021-10/jmp-2021-gender-review-final-report.pdf> [Accessed: 2 July 2023].
- Caruso, B.A., Salinger, A., Patrick, M., Conrad, A. and Sinharoy, S. 2021c. *A Review of Measures and Indicators for Gender in WASH: Inventory of Tools and Coded Measures*. Available at: <https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwashdata.org%2Fsites%2Fdefault%2Ffiles%2F2021-10%2Fjmp-2021-gender-review-inventory-tools-measures.xlsx&wdOrigin=BROWSELINK> [Accessed: 10 May 2024].

- CCA and ICRW. 2016. *Measuring Social Impact in the Clean and Efficient Cooking Sector: A How-To Guide*. Available at: <https://cleancooking.org/binary-data/RESOURCE/file/000/000/489-1.pdf> [Accessed: 17 July 2023].
- Dutto, S. 2018. *Supporting last-mile women energy entrepreneurs: What works and what does not*. Available at: <https://www.energia.org/assets/2019/01/Supporting-Last-Mile-Women-Entrepreneurs.pdf> [Accessed: 17 January 2024].
- ESMAP. 2020. *Quantifying and Measuring Climate, Health, and Gender Co-Benefits from Clean Cooking Interventions: Methodologies Review*. Washington, DC. Available at: <https://documents1.worldbank.org/curated/en/436301593546281643/pdf/Quantifying-and-Measuring-Climate-Health-and-Gender-Co-Benefits-from-Clean-Cooking-Interventions-Methodologies-Review.pdf> [Accessed: 19 April 2023].
- ESMAP. [no date]. *Closing the Gender Gap*. Available at: https://www.esmap.org/closing_the_gender_gap [Accessed: 17 January 2024].
- GEM. 2023. *GEM 2022/23 Women's Entrepreneurship Report: Challenging Bias and Stereotypes*. Available at: <https://www.gemconsortium.org/reports/womens-entrepreneurship> [Accessed: 17 January 2024].
- IEA. 2018. *World Energy Investment 2018*. Paris. Available at: <https://www.iea.org/reports/world-energy-investment-2018> [Accessed: 17 January 2024].
- IEA, IRENA, UNSD, World Bank and WHO. 2023. *Tracking SDG7: The Energy Progress Report 2023*. Washington DC. Available at: https://trackingsdg7.esmap.org/data/files/download-documents/sdg7-report2023-full_report.pdf [Accessed: 4 January 2024].
- IRENA. 2019. *Renewable Energy A Gender Perspective*. Available at: <https://www.irena.org/publications/2019/Jan/Renewable-Energy-A-Gender-Perspective> [Accessed: 17 January 2024].
- Johnson, O.W., Han, J.Y.-C., Knight, A.-L., Mortensen, S., Aung, M.T., Boyland, M. and Resurrección, B.P. 2020. Intersectionality and energy transitions: A review of gender, social equity and low-carbon energy. *Energy Research & Social Science* 70, p. 101774. doi: 10.1016/j.erss.2020.101774.
- Khalifa, Y. 2023. Gender Equality and Women Empowerment in Modern Energy Cooking. *Modern Energy Cooking Services Programme*. Available at: <https://mecs.org.uk/wp-content/uploads/2023/07/Gender.pdf> [Accessed: 17 January 2024].
- Kooijman, A., Clancy, J. and Cloke, J. 2023. Extending energy access assessment: The added value of taking a gender perspective. *Energy Research and Social Science* 96. doi: 10.1016/j.erss.2022.102923.
- Krishnapriya, P.P., Chandrasekaran, M., Jeuland, M. and Pattanayak, S.K. 2021. Do improved cookstoves save time and improve gender outcomes? Evidence from six developing countries. *Energy Economics* 102, p. 105456. doi: 10.1016/j.eneco.2021.105456.
- Levin, M. and Ganay, G. de. 2021. *Why female leadership is crucial to tackling climate change and other crises*. Available at: <https://www.weforum.org/agenda/2021/11/why-female-leadership-is-crucial-to-tackle-climate-change/> [Accessed: 17 January 2024].
- Mari, E.P. 2020. *The triple G of clean cooking: Green, gender, and good health*.

- Nedera, S. 2023. *What is intersectionality? And why is it important for gender equality?* Available at: <https://www.undp.org/bosnia-herzegovina/blog/what-intersectionality-and-why-it-important-gender-equality> [Accessed: 16 April 2024].
- Njenga, M., Gitau, J.K. and Mendum, R. 2021. Women's work is never done: Lifting the gendered burden of firewood collection and household energy use in Kenya. *Energy Research & Social Science* 77, p. 102071. Available at: <https://www.sciencedirect.com/science/article/pii/S221462962100164X>.
- Pederson, A., Greaves, L. and Poole, N. 2014. Gender-transformative health promotion for women: a framework for action. *Health Promotion International* 30(1), pp. 140–150. doi: 10.1093/heapro/dau083.
- Stritzke, S., Bricknell, M., Leach, M., Thapa, S., Khalifa, Y. and Brown, E. 2023. Impact Financing for Clean Cooking Energy Transitions: Reviews and Prospects. *Energies* 16(16), p. 5992. doi: 10.3390/en16165992.
- UK PACT. 2024. *Embedding inclusion in climate action: Lessons from the UK PACT Green Recovery Challenge Fund Portfolio*. Available at: https://7376512.fs1.hubspotusercontent-na1.net/hubfs/7376512/grcf/GESI%20Learning%20paper/30302397_UK%20PACT%20GRCF_GESI%20Learning%20Paper_v5_FINAL%20-%20updated.pdf?hsCtaTracking=ffe3c3fd-e202-4192-a2c2-564bf4705295%7C46f9eeb3-38fc-4ae8-b099-63639764e552 [Accessed: 16 April 2024].
- UN Women. 2018. *Turning promises into action: gender equality in the 2030 Agenda for Sustainable Development*. Available at: <https://eca.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2018/SDG-report-Gender-equality-in-the-2030-Agenda-for-Sustainable-Development-2018-en.pdf> [Accessed: 4 January 2024].
- UN Women and UNDESA. 2020. *Progress on the Sustainable Development Goals: The Gender Snapshot 2020*. Available at: <https://www.unwomen.org/sites/default/files/Headquarters/Attachments/Sections/Library/Publications/2020/Progress-on-the-Sustainable-Development-Goals-The-gender-snapshot-2020-en.pdf> [Accessed: 17 January 2024].
- UN Women and UNDESA. 2023. *Progress on the Sustainable Development Goals: The Gender Snapshot 2023*. United Nations Research Institute for Social Development. Available at: <https://unstats.un.org/sdgs/gender-snapshot/2023/> [Accessed: 4 January 2024].
- UNDESA. 2022. *Policy Briefs in Support of the High-Level Political Forum 2022 Addressing Energy's Interlinkages with other SDGs*. Available at: https://sdgs.un.org/sites/default/files/2022-06/2022-UN_SDG%20Brief-060122.pdf [Accessed: 17 April 2023].
- UNECE and WBI. 2010. *Developing Gender Statistics: A Practical Tool*. Geneva. Available at: https://unece.org/DAM/stats/publications/Developing_Gender_Statistics.pdf [Accessed: 25 January 2024].
- UNICEF. 2022. *Gender-Transformative Programming in UNICEF Selected Case Studies*. 3 United Nations Plaza New York, NY, 10017, USA. Available at: <https://www.unicef.org/media/117086/file/Gender-Transformative-Programming-in-UNICEF-Case-Studies-2022.pdf> [Accessed: 3 January 2024].
- United Nations. 2001. *Gender and statistics briefing note: an introduction to mainstreaming a gender perspective in statistics*.
- United Nations. 2015. *Transforming our world: the 2030 Agenda for Sustainable Development*. Available at: <https://sdgs.un.org/2030agenda> [Accessed: 3 January 2024].

United Nations. 2016. *Integrating a Gender Perspective into Statistics*. New York. Available at: <https://unstats.un.org/wiki/display/genderstatmanual/Integrating+a+Gender+Perspective+into+Statistics?prview=/79009569/85787258/Integrating-a-Gender-Perspective-into-Statistics-E.pdf> [Accessed: 10 January 2024].

WEF. 2023. *International Women's Day: What's the difference between equity and equality?* Available at: <https://www.weforum.org/agenda/2023/03/equity-equality-women-iwd/> [Accessed: 7 February 2024].

WHO. 2022. *Household air pollution*. Available at: <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health> [Accessed: 4 May 2023].

WHO. 2024. *Gender and health*. Available at: https://www.who.int/health-topics/gender#tab=tab_1 [Accessed: 7 February 2024].

WHO and UNICEF. 2023. *Gender: Review of measures and indicators for gender in WASH*. Available at: <https://washdata.org/monitoring/inequalities/gender> [Accessed: 16 January 2024].

Appendices

Appendix 1: Survey questions for Domain 1: Ability to access modern energy cooking services (MECS)

Domain 1: Ability to access modern energy cooking services						
QN	Domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/ Organization
1	Ability to access MECS	Ability to access MECS	In the last 4 weeks, how often have you or anyone in your household had to skip meals because of problems with cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Household
2	Ability to access MECS	Ability to access MECS	In the last 4 weeks, how frequently have you ran out of cooking fuel (for example, LPG cylinder)?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Household
3	Ability to access MECS	Ability to access MECS	Has there been any time in the last month when you were unable to access modern energy cooking services?	Yes No		Household
4	Ability to access MECS	Ability to access MECS	If yes, please explain			Household
5	Ability to access MECS	Ability to access MECS	During my last menstrual period, I was still able to get/collect cooking fuel for my household needs	01 = Never 02 = Sometimes 03 = Often 04 = Always	Health and well-being	Household
6	Ability to access MECS	Ability to access MECS	During my last menstrual period, I worried about how I would collect firewood or refill LPG cylinder (or any other cooking fuel)	01 = Never 02 = Sometimes 03 = Often 04 = Always	Health (stress)	Household
7	Ability to access MECS	Ability to access MECS	In the last 4 weeks, how frequently have you or anyone in your household had to change what they ate because there were	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Household

			problems with cooking fuel?			
8	Ability to access MECS	Ability to access MECS	How often [during the last 12 months] did you worry that you would not have enough cooking fuel to meet your needs?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Health (stress)	Household
9	Ability to access MECS	Ability to access MECS	Please think about where you get most of your cooking fuel/access to MECS. How often was this source interrupted or limited in any way during the last 12 months?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Environmental Context	Household
10	Ability to access MECS	Ability to access MECS	How often you could not cook because of problems with cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Household
11	Ability to access MECS	Ability to access MECS	In the last 4 weeks, how often did you have to change schedules or plans because of problems with cooking fuels?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Time and Labor	Household
12	Ability to access MECS	Ability to access MECS	Reduced the use of fuel because I could not get the amount I needed	Never Sometimes Often Always		Household
13	Ability to access MECS	Ability to access MECS	Violence due to insufficiency of cooking fuel	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Safety/freedom from violence	Household
14	Ability to access MECS	Ability to access MECS	In the last month, how often did you have enough cooking fuel to meet all your needs?	Always Sometimes Rarely Never		Household
15	Ability to access MECS	Affordability	I often have to choose between paying for cooking fuel - related needs	1 = Strongly disagree 2 = Disagree 3 = Agree 4 = Strongly agree	Financial Resources and physical assets	Household

			and other needs of my household.			
16	Ability to access MECS	Affordability	Can you afford the cost of modern energy cooking services (fuels/products)?	01 = Yes 02 = No	Financial Resources and physical assets	Household
17	Ability to access MECS	Affordability	If no, please explain		Financial Resources and physical assets	Household
18	Ability to access MECS	Affordability	Do you find it easy or difficult to pay your electricity bill?	Scale of 1-5, with 1 being most difficult (least easy) and 5 being least difficult (most easy)	Financial Resources and physical assets	Household
19	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	If I need to buy/access MECS such as LPG cylinders, EPCs, etc.), I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Freedom of movement	Household
20	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	Is it physically challenging to buy/access MECS such as LPG cylinders, EPCs, etc.)	01 = Yes 02 = No	Environmental Context	Household
21	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	If yes, please explain		Environmental Context	Household
22	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	Had to go far to buy/access MECS	01=Never 02=Sometimes 03=Often 04=Always	Environmental Context	Household
23	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	Felt access to MECS was restricted by others	Never Sometimes Often Always		Household
24	Ability to access MECS	Physical accessibility to repair and maintenance of MECS products such as EPCs	Does your community have problems with repairs or maintenance services (such as	01 = Yes 02 = No	Enabling environment	Household

			EPCs, cookstoves, etc.)?			
25	Ability to access MECS	Physical accessibility to repair and maintenance of MECS products such as EPCs	If yes, please explain		Enabling environment	Household
26	Ability to access MECS	Perceived quality or and/or satisfaction with MECS	Are you satisfied with the quantity of cooking fuel available to you? Is it sufficient for your daily needs?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied		Household
27	Ability to access MECS	Perceived quality or and/or satisfaction with MECS	Are you satisfied with the quality of MECS available to you?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied		Household
28	Ability to access MECS	Perceived quality or and/or satisfaction with MECS	Are you satisfied with the cooking fuels (MECS) that you are currently using?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied		Household
29	Ability to access MECS	Ability to access MECS	In the last 4 weeks, how often have you had to skip meals due to problems related to cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Organization
30	Ability to access MECS	Ability to access MECS	In the last 4 weeks, how frequently have you ran out of cooking fuel (for example, LPG cylinder)?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Organization
31	Ability to access MECS	Ability to access MECS	Has there been any time in the last month when you were unable to access modern energy cooking services?	Yes No		Organization
32	Ability to access MECS	Ability to access MECS	If yes, please explain			Organization
33	Ability to access MECS	Ability to access MECS	In the last 4 weeks, how frequently have you had to change what you cooked because of problems with cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Organization

34	Ability to access MECS	Ability to access MECS	How often [during the last 12 months] did you worry that you would not have enough cooking fuel to meet your needs?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Health (stress)	Organization
35	Ability to access MECS	Ability to access MECS	Please think about where you get most of your cooking fuel/access to MECS. How often was this source interrupted or limited in any way during the last 12 months?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Environmental Context	Organization
36	Ability to access MECS	Ability to access MECS	How often you could not cook because of problems with cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Organization
37	Ability to access MECS	Ability to access MECS	In the last 4 weeks, how often did you have to change schedules or plans because of problems with cooking fuels?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Time and Labor	Organization
38	Ability to access MECS	Ability to access MECS	Reduced the use of fuel because I could not get the amount I needed	Never Sometimes Often Always		Organization
39	Ability to access MECS	Ability to access MECS	Violence due to insufficiency of cooking fuel	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Safety/freedom from violence	Organization
40	Ability to access MECS	Ability to access MECS	In the last month, how often did you have enough cooking fuel to meet all your needs?	Always Sometimes Rarely Never		Organization
41	Ability to access MECS	Affordability	Can you afford the cost of modern energy cooking services (fuels/products)?	01 = Yes 02 = No		Organization
42	Ability to access MECS	Affordability	Do you find it easy or difficult to pay the electricity bill?	Scale of 1-5, with 1 being most difficult (least		Organization

				easy) and 5 being least difficult (most easy)		
43	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	If I need to buy/access MECS such as LPG cylinders, EPCs, etc.), I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Freedom of movement	Organization
44	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	Is it physically challenging to buy/access MECS such as LPG cylinders, EPCs, etc.)	01 = Yes 02 = No	Environmental Context	Organization
45	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	If yes, please explain		Environmental Context	Organization
46	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	Had to go far to buy/access MECS	01=Never 02=Sometimes 03=Often 04=Always	Environmental Context	Organization
47	Ability to access MECS	Availability of locations and physical accessibility to access/buy MECS	Felt access to MECS was restricted by others	Never Sometimes Often Always		Organization
48	Ability to access MECS	Physical accessibility to repair and maintenance of MECS products such as EPCs	Does your community have problems with repairs or maintenance services (such as EPCs, cookstoves, etc.)?	01 = Yes 02 = No	Enabling environment	Organization
49	Ability to access MECS	Physical accessibility to repair and maintenance of MECS products such as EPCs	If yes, please explain		Enabling environment	Organization
50	Ability to access MECS	Perceived quality or and/or satisfaction with MECS	Are you satisfied with the quantity of cooking fuel available to you? Is	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied		Organization

			it sufficient for your daily needs?			
51	Ability to access MECS	Perceived quality or and/or satisfaction with MECS	Are you satisfied with the quality of MECS available to you?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied		Organization
52	Ability to access MECS	Perceived quality or and/or satisfaction with MECS	Are you satisfied with the cooking fuels (MECS) that you are currently using?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied		Organization

Appendix 2: Survey questions for Domain 2: Access to MECS-related resources, Sub-domain 2.1: Time and labour

Domain 2: Access to resources related to modern energy cooking services						
Sub-domain 2.1: Time and Labour						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/ Organization
1	Time and labour	Control over time and labour spent on cooking and fuel collection activities	In the last 4 weeks, how frequently you had to change schedules or plans due to problems with cooking fuels?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Household
2	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Worried about dependents (children, sick, or elderly who need me) when I go to collect firewood	01=Never 02=Sometimes 03=Often 04=Always	Health	Household
3	Time and labour	Control over time and labour spent on cooking and fuel collection activities	How long do you spend on firewood collection?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Household
4	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Firewood collection/or cooking fuel collection affects women's time to rest, conduct other activities such as education, employment, etc.?	Always/All the time Most of the time Rarely None / not at all	Safety	Household
5	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Is it easy or difficult for you to collect and transport firewood or any other cooking fuel to your house?	Scale of 1-5, with 1 being least difficult and 5 being most difficult		Household
6	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Cooking fuel collection and preparation prevent me from completing other household work.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household

7	Time and labour	Control over time and labour spent on cooking and fuel collection activities	I had to wake up early in the morning to collect and prepare firewood/cooking fuel	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
8	Time and labour	Control over time and labour spent on cooking and fuel collection activities	I often miss out on activities I would like to do because of time spent on cooking fuel collection and preparation	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
9	Time and labour	Control over time and labour spent on cooking and fuel collection activities	I may be scolded or punished for taking too much time when I go to collect firewood or prepare firewood	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
10	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Had to walk a long distance from home to collect firewood/cooking fuel	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Environmental Context	Household
11	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Had to queue up for a long time to collect/buy cooking fuel	Never Sometimes Often Always		Household
12	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Have trouble finding someone to watch dependents (children, sick, elderly) so I can collect/buy cooking fuel	Never Sometimes Often Always	Social Capital	Household
13	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Had to leave dependent (children, sick, elderly) alone to collect cooking fuel	Never Sometimes Often Always		Household
14	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Was unable to complete all work because of firewood collection	Never Sometimes Often Always		Household

15	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Didn't have enough night sleep because I had to go out to collect firewood	Never Sometimes Often Always		Household
16	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Had to do extra work washing my dirty clothes due to firewood collection, preparation or cooking	Never Sometimes Often Always		Household
17	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Worried about taking too much time when collecting firewood/cooking fuel	Never Sometimes Often Always	Health and well being	Household
18	Time and labour	Control over time and labour spent on cooking and fuel collection activities	How many days in the past 12 months did you participate in community activities?		Public Participation	Household
19	Time and labour	Labour delegation for household chores (firewood collection and preparation)	In your community, women are responsible for firewood collection and preparation	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Social Context	Household
20	Time and labour	Labour delegation for household chores (cooking)	In your community, women are responsible for cooking	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Social Context	Household
21	Time and labour	Labour delegation for household chores (firewood collection and preparation)	In your household, who is responsible for firewood collection and preparation/getting cooking fuel?	1= Adult woman 02= Adult man 03= Girl under 15 years 04= Boy under 15 years 05= other (specify)		Household
22	Time and labour	Labour delegation for household chores (cooking)	In your household, who is responsible for cooking?	1= Adult woman 02= Adult man 03= Girl under 15 years 04= Boy under 15 years 05= other (specify)		Household

23	Time and labour	Labour delegation for household chores (firewood collection and preparation)	What is the balance between men and women in firewood collection and preparation?	Not balanced at all Minimal balance Almost balanced Evenly balanced	Social Context	Household
24	Time and labour	Labour delegation for household chores (cooking)	What is the balance between men and women in cooking?	Not balanced at all Minimal balance Almost balanced Evenly balanced		Household
25	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related chores, and control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities	In your household, who allocates the task to collect and prepare firewood (or any other cooking fuel)?		Decision-making	Household
26	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related chores, and control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities	Do you volunteer to collect and prepare cooking fuel?	Yes / No	Decision-making	Household
27	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related chores	If you were not required to spend time on firewood collection and preparation, what would you do with this time?		Decision-making	Household
28	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related chores	Women have more firewood collection and cooking related responsibilities than men	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household

29	Time and labour	Labour delegation for household chores related to cookstoves repairs and maintenance	In your community, women are responsible for cookstoves repairs and maintenance	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
30	Time and labour	Labour delegation for household chores related to cookstoves repairs and maintenance	In your household, who is responsible for cookstoves repairs and maintenance?		Social Context	Household
31	Time and labour	Labour delegation for household chores (firewood collection, preparation and cooking)	In this community, it is women more often than men who are expected to wash clothes that become dirty as a result of firewood collection, preparation and cooking	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
32	Time and labour	Labour delegation for household chores (cookstoves repairs and maintenance)	Even if women were trained, it would be socially unacceptable for women to do cookstoves repairs and maintenance	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
33	Time and labour	Labour delegation for household chores (firewood collection, preparation and cooking)	I have someone who would help me with firewood collection and cooking-related chores	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social capital	Household
34	Time and labour	Labour delegation for household chores (firewood collection, preparation and cooking)	Which of the following people would help you with firewood collection and cooking-related chores? [select all that apply]	01 = family member 02 = friend 03 = neighbour/other community member 04 = hired help	Social capital	Household
35	Time and labour	Time spent on fuel collection activities	On a typical day in the DRY season, how much time do you spend collecting firewood/cooking fuel?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Household

36	Time and labour	Time spent on fuel collection	On a typical day in the WET season, how much time do you spend collecting firewood/cooking fuel?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Household
37	Time and labour	Time spent on fuel collection	How much time do you spend daily on collecting and transporting cooking fuel from the source to your home?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Household
38	Time and labour	Time spent on fuel collection	How often did you have to change schedules or plans because of problems with cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Ability to access cooking fuel	Household
39	Time and labour	Time spent on fuel collection	How many times a week do you have to go to collect firewood or any other cooking fuel?	numeric (times per week)		Household
40	Time and labour	Time spent on fuel collection	How many minutes do you need to walk to collect firewood or any other cooking fuel?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Household
41	Time and labour	Time spent on activities with possible firewood collection and cooking implications	How much time in the last 7 days did you spend on any of the following activities for the household: Collecting firewood? Fetching water? Washing clothes? Cleaning? Cooking? Washing dishes/pots?			Household
42	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Needed to make multiple trips to collect the quantity of firewood needed for cooking/cooking fuel	Never Sometimes Often Always		Household

43	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Firewood/cooking fuel collection is usually too early in the day or too late at night	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree		Household
44	Time and labour	Control over time and labour spent on cooking and fuel collection activities	In the last 4 weeks, how frequently you had to change schedules or plans due to problems with cooking fuels?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Organization
45	Time and labour	Control over time and labour spent on cooking and fuel collection activities	How long do you spend on firewood collection/cooking fuel?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Organization
46	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Firewood collection and preparation affects women's time to conduct other activities	Always/All the time Most of the time Rarely None / not at all	Safety	Organization
47	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Is it easy or difficult for you to collect and transport firewood or any other cooking fuel to your workplace?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied		Organization
48	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Cooking fuel collection and preparation prevent me from completing other work.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Organization
49	Time and labour	Control over time and labour spent on cooking and fuel collection activities	I had to wake up early in the morning to collect and prepare firewood.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Organization
50	Time and labour	Control over time and labour spent on cooking and fuel collection activities	I often miss out on activities I would like to do because of time spent on cooking fuel collection and preparation	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Organization
51	Time and labour	Control over time and labour spent on cooking and	I may be scolded or punished for taking too much time when I go to collect	01 = Strongly disagree 02 = Disagree 03 = Agree		Organization

		fuel collection activities	firewood or prepare firewood	04 = Strongly agree		
52	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Had to walk a long distance from work to collect firewood/cooking fuel	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Environmental Context	Organization
53	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Had to queue up for a long time to collect/buy cooking fuel	Never Sometimes Often Always		Organization
54	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Was unable to complete all work because of firewood collection and preparation	Never Sometimes Often Always		Organization
55	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Slept few hours because I had to go out early in the morning to collect firewood/cooking fuel	Never Sometimes Often Always		Organization
56	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Had to do extra work washing my dirty clothes due to firewood collection, preparation or cooking	Never Sometimes Often Always		Organization
57	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Worried about taking too much time when collecting firewood/cooking fuel	Never Sometimes Often Always	Health	Organization
58	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related tasks and activities	In your community, women are responsible for firewood collection and preparation	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Social Context	Organization
59	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related tasks and activities	In your community, women are responsible for cooking	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Social Context	Organization

60	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related tasks and activities	At your workplace, who is responsible for firewood collection and preparation?	1= Adult woman 02= Adult man 03= Girl under 15 years 04= Boy under 15 years 05= other (specify)		Organization
61	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related tasks and activities	At your workplace, who is responsible for cooking?	1= Adult woman 02= Adult man 03= Girl under 15 years 04= Boy under 15 years 05= other (specify)		Organization
62	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related tasks and activities	At your workplace, what is the balance between men and women in firewood collection and preparation?	Not balanced at all Minimal balance Almost balanced Evenly balanced	Social Context	Organization
63	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related tasks and activities	At your workplace, what is the balance between men and women in cooking?	Not balanced at all Minimal balance Almost balanced Evenly balanced		Organization
64	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related chores, and control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities	At your workplace, who allocates the task to collect and prepare firewood (or any other cooking fuel)?		Decision-making	Organization
65	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related chores, and control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities	Do you volunteer to collect and prepare cooking fuel?	Yes / No	Decision-making	Organization

66	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related tasks and activities	If you were not required to spend time on firewood collection and preparation, what would you do with this time?		Decision-making	Organization
67	Time and labour	Labour delegation for cooking and cooking fuel/MECS-related tasks and activities	Women have more firewood collection and cooking related responsibilities than men	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Organization
68	Time and labour	Labour delegation related to cookstove repairs and maintenance	In your community, women are responsible for cookstoves repairs and maintenance	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Organization
69	Time and labour	Labour delegation related to cookstove repairs and maintenance	Who is in charge of cookstove repairs and maintenance at your workplace?		Social Context	Organization
70	Time and labour	Labour delegation related to cookstove repairs and maintenance	Even if women were trained, it would be socially unacceptable for women to do cookstoves repairs and maintenance	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Organization
71	Time and labour	Time spent on fuel collection activities	On a typical day in the DRY season, how much time do you spend collecting firewood/cooking fuel?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Organization
72	Time and labour	Time spent on fuel collection	On a typical day in the WET season, how much time do you spend collecting firewood/cooking fuel?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Organization
73	Time and labour	Time spent on fuel collection	How much time do you spend daily on collecting and transporting cooking fuel from the source to the workplace?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Organization

74	Time and labour	Time spent on fuel collection	How often did you have to change schedules or plans because of problems with cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Ability to access cooking fuel	Organization
75	Time and labour	Time spent on fuel collection	How many times a week do you have to go to collect firewood or any other cooking fuel?	numeric (times per week)		Organization
76	Time and labour	Time spent on fuel collection	How many minutes do you need to walk to collect firewood or any other cooking fuel?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours		Organization
77	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Needed to make multiple trips to collect the quantity of firewood needed for cooking	Never Sometimes Often Always		Organization
78	Time and labour	Control over time and labour spent on cooking and fuel collection activities	Firewood collection is usually too early in the day or too late at night	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree		Organization

Appendix 3: Survey questions for Domain 2: Access to MECS-related resources, Sub-domain 2.2: Safety and freedom of violence

Domain 2: Access to resources related to modern energy cooking services						
Sub-domain 2.2: Safety and freedom from violence						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/ Organization
1	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse while collecting firewood or any other cooking fuel	I know a woman in this community who has been sexually assaulted by a man or boy when she went to collect firewood or any other cooking fuel	01 = Yes 02 = No		Household/ Organization
2	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse while collecting firewood or any other cooking fuel	I know a woman in this community who has been physically harmed by a man or boy when going to collect firewood or any other cooking fuels	01 = Yes 02 = No		Household/ Organization
3	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse while collecting firewood or any other cooking fuel	I know a woman who has had someone make sexual comments or say obscene things to her when she went to collect firewood or any other cooking fuels	01 = Yes 02 = No		Household/ Organization
4	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse while collecting firewood or any other cooking fuel	Are there gender-based violence incidences related to firewood collection?	Always/All the time Most of the time Rare cases of GBV None, no GBV at all		Household/ Organization
5	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse while collecting firewood or any other cooking fuel	Bullying due to firewood collection (or cooking fuel)	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree		Household/ Organization

6	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse while collecting firewood or any other cooking fuel	Experienced harassment or scolding due to firewood collection (or cooking fuel)	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree		Household/ Organization
7	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse while collecting firewood or any other cooking fuel	Experienced violence due to insufficiency of cooking fuel	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Ability to access cooking fuel	Household/ Organization
8	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse while collecting firewood or any other cooking fuel	In the past 12 months, have you or anyone in your household been the victim of a violent crime, such as assault or mugging? Yes/ No How many times?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Household/ Organization
9	Safety/freedom from violence	Perceived risk of physical/sexual/verbal abuse at home/from family	Women in my community face the risk of being hit by their husbands or other family members if they fail to complete cooking-related chores (including firewood collection & preparation)	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
10	Safety/freedom from violence	Perceived risk of physical/sexual/verbal abuse at home/from family	I may be scolded or punished for taking too much time when I go to collect firewood or prepare firewood/cooking fuel	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
11	Safety/freedom from violence	Perceived risk of physical/sexual/verbal abuse at home/from family	I may be scolded, punished, hit by husband if I burn food	2 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household

12	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse at home/workplace	Experienced violence due to firewood collection and preparation-related tasks at home/or workplace	Never Sometimes Often Always		Household/ Organization
13	Safety/freedom from violence	Experiences of physical/sexual/verbal abuse at home/workplace	Experienced harassment or scolding due to firewood collection and preparation-related tasks at home/or workplace	Never Sometimes Often Always		Household/ Organization
14	Safety/freedom from violence	Knowledge of how to report safety concerns	Do women know where to go for help if they are subject to violence, and do they know where and how to make a complaint?	01 = Yes 02 = No	Knowledge	Household/ Organization
15	Safety/freedom from violence	Perception of safety	In your opinion, is this village/neighbourhood generally peaceful or marked by violence?	Very peaceful Moderately peaceful Neither peaceful nor violent Moderately violent Very violent	Social Context	Household/ Organization
16	Safety/freedom from violence	Perception of safety	How safe do you feel when walking down your street alone after dark?	Very safe Moderately safe Neither safe nor unsafe Moderately unsafe Very unsafe	Social Context	Household/ Organization
17	Safety/freedom from violence	Perception of safety	In the past 30 days, I feared I would be physically harmed by someone when I went to collect firewood or any other cooking fuels	1 = Never 02 = Sometimes 03 = Often 04 = Always	Health	Household/ Organization
18	Safety/freedom from violence	Perception of safety	In the past 30 days, I feared I would be sexually assaulted when I went to collect firewood or any other cooking fuel	1 = Never 02 = Sometimes 03 = Often 04 = Always	Health	Household/ Organization

19	Safety/freedom from violence	Perception of safety	Women in my community face the risk of being physically harmed by men or boys when going to collect firewood or any other cooking fuel	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
20	Safety/freedom from violence	Perception of safety	Women in my community face the risk of sexual assault when going to collect firewood or any other cooking fuel	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
21	Safety/freedom from violence	Perception of safety	Women in my community face the risk of someone making sexual comments or saying obscene things to them when they go to collect firewood or any other cooking fuel	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization

Appendix 4: Survey questions for Domain 2: Access to MECS-related resources, Sub-domain 2.3: Health and well-being

Domain 2: Access to resources related to modern energy cooking services						
Sub-domain 2.3: Health and well-being						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/ Organization
1	Health and well-being	Experience of illness related to cooking fuel	Are you suffering from health problems due to cooking with polluting fuels such as firewood (or you believe they are related to cooking with polluting fuels)	01 = Yes 02 = No		Household/ Organization
2	Health and well-being	Experience of illness related to cooking fuel	If yes, what type of illness?	Asthma Chronic bronchitis Reduced lung function Lung cancer Reduced immune function Heart disease other, please specify		Household/ Organization
3	Health and well-being	Experience of injury while accessing cooking fuel	Had difficulty or pain lifting or carrying firewood or any other cooking fuel (such as LPG cylinder)	Never Sometimes Often Always		Household/ Organization
4	Health and well-being	Experience of injury while accessing cooking fuel	Had wounds on hands/feet from collecting firewood or any other cooking fuel	Never Sometimes Often Always		Household/ Organization
5	Health and well-being	Experience of injury while accessing cooking fuel	When I went to get firewood or other cooking fuel, I was afraid I would be attacked by animals or insects	01=Never 02=Sometimes 03=Often 04=Always		Household/ Organization
6	Health and well-being	Experience of injury while accessing cooking fuel	In the past 30 days, I was afraid of getting injured because of the physical conditions while accessing cooking fuels/MECS - such as slippery conditions, rocks or thorns, uneven pathways, obstacles, etc.	1 = Never 02 = Sometimes 03 = Often 04 = Always	Environmental Context	Household/ Organization

7	Health and well-being	Experience of injury while using cooking fuel	In the past 12 months, I was injured/hurt as a result of using cooking fuels/MECS	01 = Yes 02 = No		Household/ Organization
8	Health and well-being	Experience of injury while using cooking fuel	If yes, how many times you were injured/hurt as a result of using cooking fuel/MECS	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Household/ Organization
9	Health and well-being	Experience of injury while using cooking fuel	Please specify type of injury			Household/ Organization
10	Health and well-being	Experience of injury while using cooking fuel	Please specify type of cooking fuel/MECS			Household/ Organization
11	Health and well-being	Fear of harm from others while accessing cooking fuel	In the past 30 days, I was afraid of being harassed or injured by men, boys, or other people when collecting cooking fuel/MECS	1 = Never 02 = Sometimes 03 = Often 04 = Always	Safety	Household/ Organization
12	Health and well-being	Fear of harm from others while accessing cooking fuel	In the past 30 days, I was afraid of being physically harmed by someone when I went to get cooking fuel/MECS	1 = Never 02 = Sometimes 03 = Often 04 = Always	Safety	Household/ Organization
13	Health and well-being	Fear of harm from others while accessing cooking fuel	In the past 30 days, I was afraid of being sexually assaulted when I went to collect cooking fuel/MECS	1 = Never 02 = Sometimes 03 = Often 04 = Always	Safety	Household/ Organization
14	Health and well-being	Fear of harm from others while accessing cooking fuel	In the past 30 days, I was afraid that someone would make sexual comments or say obscene things to me when I went to collect cooking fuel/MECS	1 = Never 02 = Sometimes 03 = Often 04 = Always	Safety	Household/ Organization
15	Health and well-being	Health concerns that may create additional needs or affect the ability to access cooking fuel	In the last 12 months, have you suffered any injury, illness, disability or other physical or mental harm?	No Yes Refuses to say		Household/ Organization

16	Health and well-being	Health concerns that may create additional needs or affect the ability to access cooking fuel	What effect did this injury, illness or other harm have on you?	0 = No long-term effect 1 = A long-term effect that prevents me from working at all 2 = A long-term effect so I can't continue to perform the same work 3 = A long-term effect but can still do same work as before Refuses to say		Household/ Organization
17	Health and well-being	Health concerns that may create additional needs or affect the ability to access cooking fuel	What type of injury, illness, disability or other physical or mental harm are you suffering from?	1 = Headaches/dizziness 2 = Backache, muscle or joint ache 3 = Injury/wound/burn 4 = Respiratory/breathing problem 5 = Stress/irritability 6 = Extreme fatigue 7 = Digestive/stomach problems 8 = Other		Household/ Organization
18	Health and well-being	Health concerns that may create additional needs or affect the ability to access cooking fuel	Did this illness or injury make it impossible or very difficult to perform your usual paid or unpaid activities?	01 = Yes 02 = No	Financial resources and physical assets	Household/ Organization
19	Health and well-being	Health concerns that may create additional needs or affect the ability to access cooking fuel	How long was it difficult or impossible for you to perform your usual paid or unpaid activities because of your illness or injury?	Level 1 = More than 2 weeks Level 2 = 1-2 weeks Level 4 = Less than 1 week Level 5 = No problems (last illness more than one year ago or last illness did not make it difficult or impossible to perform usual activity)	Financial resources and physical assets	Household/ Organization

20	Health and well-being	Impact of health on ability to access cooking fuel (or MECS)	Do you have difficulty walking or climbing steps?	No difficulty walking or climbing Some difficulty A lot of difficulty Cannot walk or climb at all Don't know	Ability to access MECS	Household/ Organization
21	Health and well-being	Impact of health on ability to access cooking fuel (or MECS)	Had difficulty walking to collect cooking fuel/access MECS	Never Sometimes Often Always	Ability to access MECS	Household/ Organization
22	Health and well-being	Impact of health on ability to access cooking fuel (or MECS)	During my last menstrual period, I was still able to get/collect cooking fuel	01 = Never 02 = Sometimes 03 = Often 04 = Always	Ability to access MECS	Household/ Organization
23	Health and well-being	Impact of health on ability to access cooking fuel (or MECS)	During my last menstrual period, I worried about how I would collect firewood or refill LPG cylinder (or any other cooking fuel)	01 = Never 02 = Sometimes 03 = Often 04 = Always	Ability to access MECS	Household/ Organization
24	Health and well-being	Mental wellbeing related to availability of cooking fuel	In the last 4 weeks, how frequently did you worry about not having enough cooking fuel for all your household/workplace needs?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Household/ Organization
25	Health and well-being	Mental wellbeing related to accessing cooking fuel	In the past 30 days, I suffered from anxiety, stress, or tension while collecting cooking fuel/MECS	1 = Never 02 = Sometimes 03 = Often 04 = Always		Household/ Organization
26	Health and well-being	Mental wellbeing related to accessing cooking fuel	Worried about not having enough money to buy cooking fuel/MECS	01=Never 02=Sometimes 03=Often 04=Always	Financial resources and physical assets	Household
27	Health and well-being	Mental wellbeing related to accessing cooking fuel	Worried about dependents (children, sick, or elderly who need me when I go to collect cooking fuel/MECS	01=Never 02=Sometimes 03=Often 04=Always	Time and labour	Household

28	Health and well-being	Mental wellbeing related to cooking fuel	Worried that cooking with firewood/polluting fuels were bad for health			Household/ Organization
29	Health and well-being	Mental wellbeing related to cooking fuel	In the last 4 weeks, how often did you feel angry because of problems related to cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)		Household/ Organization
30	Health and well-being	Mental wellbeing related to accessing cooking fuel	Worried about taking too much time to collect and prepare firewood for cooking	Never Sometimes Often Always	Time and labour	Household/ Organization
31	Health and well-being	Mental wellbeing related to accessing cooking fuel	To what extent does obtaining cooking fuel/MECS cause stress?	No stress Not much stress Mild stress Severe stress		Household/ Organization

Appendix 5: Survey questions for Domain 2: Access to resources related MECS, Sub-domain 2.4: Knowledge, information and technologies

Domain 2: Access to resources related to modern energy cooking services						
Sub-domain 2.4: Knowledge, information and technology						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/ Organization
1	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	How often did you hear information about types of cooking fuels, advantages and disadvantages of cooking fuels, health and environmental impacts, MECS technologies, etc. in the past 12 months.	Never Once Twice Three times More than three times		Household/ Organization
2	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	From what source did you hear information about types of cooking fuels, advantages and disadvantages of cooking fuels, health and environmental impacts, MECS technologies, etc.?	Husband/partner Wife/partner Father Mother Sister Brother Woman relative Man relative Friend Teacher Book Magazine Radio TV Social media Traders or Business Association Professional Association (doctors, engineers, teachers, etc.) Trade Union or labour Union Neighbours Village committee Religious or spiritual group Political group or movement Finance, credit or savings group Health group Clean		Household/ Organization

				cooking/modern energy cooking group NGO or civic group Ethnic-based community group Other, please specify		
3	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	Did you share this information with other people (in your household or workplace)?	Yes No	Social capital	Household/ Organization
4	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	How often did you hear information about citizen's rights related to clean cooking services in the past 12 months.	Never Once Twice Three times More than three times		Household/ Organization
5	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	From what source did you hear information about citizen's rights related to clean cooking services?	Husband/partner Wife/partner Father Mother Sister Brother Woman relative Man relative Friend Teacher Book Magazine Radio TV Social media Traders or Business Association Professional Association (doctors, engineers, teachers, etc.) Trade Union or labour Union Neighbours Village committee Religious or spiritual group Political group or movement Finance, credit or savings group Health group Clean cooking/modern energy cooking group NGO or civic group Ethnic-based		Household/ Organization

				community group Other, please specify		
6	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	Did you share the information about citizen's rights related to clean cooking services with other people (in your household or workplace)?	Yes No	Social capital	Household/ Organization
7	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	I know someone or I know where to go if I needed information about cooking fuel/MECS	Yes No	Social capital	Household/ Organization
8	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	I know how decisions about cooking fuels/MECS are made in my community	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
9	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	I have enough knowledge to contribute to decisions on cooking fuel/MECS in my community.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
10	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	I am knowledgeable about my community's cooking fuel/MECS issues.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
11	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	If my community had the opportunity to improve clean cooking services, I would have ideas about what the community needs most.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
12	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	I know who to contact to report or resolve a cooking fuel/MECS-related problem in my community.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
13	Access to knowledge, information and technologies	Access to information related to cooking fuel/MECS	I know an individual or company that provides cooking fuel/MECS-related services in this	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization

			community, such as repairs and maintenance of EPCs or cookstoves.			
14	Access to knowledge, information and technologies	Technical skills	I know how to make minor repairs or maintenance to cookstoves/EPCs	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
15	Access to knowledge, information and technologies	Technical skills	Did you receive any technical training to help you with repairing or maintaining your cookstove/EPC?	Yes No		Household/ Organization
16	Access to knowledge, information and technologies	Technical skills	If yes, the training was provided by	Public sector/organization Private sector/organization Civil society Other, please specify		Household/ Organization
17	Access to knowledge, information and technologies	Financial and Market Literacy	I know how to manage money to buy an EPC or any other MECS products/solutions	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
18	Access to knowledge, information and technologies	Financial and Market Literacy	I received training to help me manage money to buy an EPC (or any other MECS products/solutions)	Yes No		Household/ Organization
19	Access to knowledge, information and technologies	Financial and Market Literacy	Training received was helpful	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree		Household/ Organization
20	Access to knowledge, information and technologies	Technical skills	Did you receive any technical training to help you with repairing or maintaining cookstoves/EPCs in your community?	Yes No		Household/ Organization
21	Access to knowledge, information and technologies	Technical skills	If yes, the training was provided by	Public sector/organization Private sector/organization Civil society Other, please specify		Household/ Organization

22	Access to knowledge, information and technologies	Technical skills	Training received was helpful	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree		Household/ Organization
23	Access to knowledge, information and technologies	Financial and Market Literacy	Did you receive leadership and job skills training related to MECS?	Yes No		Household/ Organization
24	Access to knowledge, information and technologies	Financial and Market Literacy	If yes, the training was provided by	Public sector/organization Private sector/organization Civil society Other, please specify		Household/ Organization
25	Access to knowledge, information and technologies	Financial and Market Literacy	Training received was helpful	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree		Household/ Organization

Appendix 6: Survey questions for Domain 2: Access to MECS-related resources, Sub-domain 2.5: Financial resources

Domain 2: Access to resources related to modern energy cooking services						
Sub-domain 2.5: Financial resources						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/ Organization
1	Financial resources	Access to financial assistance including loans and subsidies	Is there a credit or microfinance group in your community?	Yes No Don't know		Household
2	Financial resources	Access to financial assistance including loans and subsidies	Are you an active member in the credit or microfinance group?	Yes No	Public Participation; Social Capital	Household
3	Financial resources	Access to financial assistance including loans and subsidies	Did you have any inputs in decisions that were made by the credit or microfinance group? (example, activities conducted, use of funds, leadership)	Yes No	Decision-making	Household
4	Financial resources	Access to financial assistance including loans and subsidies	What sources are available for you to take a loan or financial assistance?		Economic Context	Household
5	Financial resources	Access to financial assistance including loans and subsidies	Applying for a loan is easy or difficult	Very easy Somehow easy Difficult Very difficult Nearly impossible	Economic Context	Household
6	Financial resources	Access to financial assistance including loans and subsidies	If difficult, please explain			Household
7	Financial resources	Access to financial assistance including loans and subsidies	Have you ever taken a loan?	Yes No	Economic Context	Household
8	Financial resources	Access to financial assistance including loans and subsidies	If yes, from which source?		Economic Context	Household

9	Financial resources	Access to financial assistance including loans and subsidies	How will you repay the loan?		Economic Context	Household
10	Financial resources	Access to financial assistance including loans and subsidies	Are you having any difficulties in returning the loan?	Yes No	Economic Context	Household
11	Financial resources	Access to financial assistance including loans and subsidies	If yes, please explain			Household
12	Financial resources	Access to financial assistance including loans and subsidies	Why did you take a loan?			Household
13	Financial resources	Access to financial assistance including loans and subsidies	Were there any difficulties using the money for the purpose for which the loan was taken?	Yes No		Household
14	Financial resources	Access to financial assistance including loans and subsidies	If yes, how did you overcome these difficulties?			Household
15	Financial resources	Access to financial assistance including loans and subsidies	Did your household buy an EPC (MECS products or any other electric cooking products)?	Yes No		Household
16	Financial resources	Access to financial assistance including loans and subsidies	If yes, how did your household buy an EPC (MECS products or any other electric cooking products)?	Direct purchase Micro-finance Subsidy Other	Economic context	Household
17	Financial resources	Access to sufficient fund to access MECS	I have enough money to buy an EPC (MECS products or any other electric cooking products)	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
18	Financial resources	Access to sufficient fund to access MECS	If I don't have enough money to buy an EPC (MECS products or any other electric cooking products), I can get money by selling or renting anything I own, or by working.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
19	Financial resources	Access to sufficient fund to access MECS	If I don't have enough money to buy an EPC (MECS products or any other electric cooking products), I can get money by participating in a	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household

			savings group or accessing credits			
20	Financial resources	Access to sufficient fund to access MECS	I often have to choose between paying for cooking fuel/MECS and other needs of my household.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Ability to access MECS	Household
21	Financial resources	Control over resources for MECS	Do you have to ask the permission of other household members to buy an EPC (MECS products or any other electric cooking products)	Yes No		Household
22	Financial resources	Control over resources for MECS	When decisions are made regarding household expenditure related to MECS, who normally makes the decision?	Respondent Mother Father Husband/partner Respondent and Wife/partner jointly Respondent and Husband/partner jointly Sister Brother Other	Decision-making	Household
23	Financial resources	Control over resources for MECS	How much input do you have in making decisions about household expenditure related to MECS?	No input or input in few decisions Input into some decisions Input into most or all decisions	Decision-making	Household
24	Financial resources	Control over resources for MECS	To what extent do you feel you could make your own decisions regarding household expenditure related to cooking fuel/MECS, if you wanted to?	Not at all Small extent Medium extent To a high extent	Decision-making	Household

25	Financial resources	Control over resources for MECS	Did you participate in household expenditure related to cooking fuel/MECS in the past 12 months?	Yes No	Decision-making	Household
26	Financial resources	Control over resources for MECS	I have control over money that I could use to invest or contribute to a community project related to MECS	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
27	Financial resources	Control over resources for MECS	I have control over money that could be used to buy an EPC (MECS products or any other electric cooking products)	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
28	Financial resources	Control over resources for MECS	I have independently made decisions related to MECS or any other types of cooking fuel for my household.	01 = Yes 02 = No 03 = My household has not made this type of decision in the past 3 years	Decision-Making	Household
29	Financial resources	Control over resources for MECS	Who usually makes decisions about making major household purchases?	Respondent Mother Father Husband/partner Respondent and Wife/partner jointly Respondent and Husband/partner jointly Sister Brother Other	Decision-making	Household
30	Financial resources	Control over resources for MECS	Who usually decides how the money you earn will be used?	Respondent Mother Father Husband/partner Respondent and Wife/partner jointly Respondent and Husband/partner jointly Sister	Decision-making	Household

				Brother Other		
31	Financial resources	Control over resources for MECS	Your opinion is important in the financial decisions of your family	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Decision-making	Household
32	Financial resources	Cost of MECS	Monthly cost of MECS		Economic Context	Household
33	Financial resources	Cost of MECS	How much do you pay for your electricity bill per month?		Economic Context	Household
34	Financial resources	Cost of MECS	Monthly cost of repairs and maintenance of EPCs, eCookers, cookstoves, etc.		Economic Context	Household
35	Financial resources	Distribution of MECS-related costs within the household	Who pays for cooking fuel/MECS in your household?	Respondent Mother Father Husband/partner Respondent and Wife/partner jointly Respondent and Husband/partner jointly Sister Brother Other		Household
36	Financial resources	Impact of cooking with polluting fuels/or the lack of access to MECS on financial resources/physical assets	How does cooking with polluting fuels/or not having access to MECS affect your health?		Health	Household

37	Financial resources	Impact of cooking with polluting fuels/or the lack of access to MECS on financial resources/physical assets	How does cooking with polluting fuels/or not having access to MECS affect your education?			Household
38	Financial resources	Impact of cooking with polluting fuels/or the lack of access to MECS on financial resources/physical assets	How does cooking with polluting fuels/or not having access to MECS affect your livelihood?			Household
39	Financial resources	Access to financial assistance	If you suddenly needed a small amount of money, how many people beyond your immediate household could you turn to who would be willing to provide this money?	No one One to two people Three or four people Five or more people	Social capital	Household
40	Financial resources	Access to financial assistance	Of those people, how many do you think are currently able to provide this money?	No one One to two people Three or four people Five or more people	Social capital	Household
41	Financial resources	Access to financial assistance	Are most of those people of similar/higher/lower economic status?	Similar Higher Lower	Social capital	Household
42	Financial resources	Access to financial assistance	If a community project does not directly benefit you, but has benefits for many others in the village/neighbourhood, would you contribute time or money to the project?	Will contribute time Will not contribute time Will contribute money Will not contribute money	Public participation	Household
43	Financial resources	Ownership of physical assets	Does anyone in your household own a small consumer durables (radio, cookware, etc.)?	Yes, solely Yes, jointly No		Household

44	Financial resources	Ownership of physical assets	Do you own any of the small consumer durables (radio, cookware, etc.)?	Yes, solely Yes, jointly No		Household
45	Financial resources	Ownership of physical assets	Does anyone in your household have a cell phone?	Yes, solely Yes, jointly No		Household
46	Financial resources	Ownership of physical assets	Do you own a cell phone?	Yes, solely Yes, jointly No		Household
47	Financial resources	Ownership of physical assets	Does anyone in your household own a bicycle, motorcycle or a car?	Yes, solely Yes, jointly No		Household
48	Financial resources	Ownership of physical assets	Do you own a bicycle, motorcycle or a car?	Yes, solely Yes, jointly No		Household
49	Financial resources	Perceived affordability of cooking fuel/MECS	Worried about not having enough money to pay for cooking fuel/MECS	01=Never 02=Sometimes 03=Often 04=Always	Health and well-being	Household
50	Financial resources	Perceived affordability of cooking fuel/MECS	Can you afford the cost of cooking fuel/MECS?	01 = Yes 02 = No		Household
51	Financial resources	Perceived affordability of cooking fuel/MECS	Do you find it easy or difficult to pay for your household cooking fuel (or MECS) needs?	Scale of 1-5, with 1 being most difficult (least easy) and 5 being least difficult (most easy)		Household
52	Financial resources	Perceived affordability of cooking fuel/MECS	What was the main reason that you were unable to access cooking fuel/MECS when needed?	Not available Expensive Cannot afford it Not accessible Other, please specify	Economic Context	Household
53	Financial resources	Perceived affordability of cooking fuel/MECS	Are you satisfied with the electricity tariff? (specifically for the use of EPCs or any other ecooker)	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied		Household
54	Financial resources	Perceived affordability of cooking fuel/MECS	Are you satisfied with the price of the cooking fuel/MECS?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied		Household
55	Financial resources	Willingness to pay for MECS/products	Are you willing to pay for MECS (such as buying an EPC)?	01 = Yes 02 = No		Household

56	Financial resources	Willingness to pay for MECS/products	If yes, why?			Household
57	Financial resources	Willingness to pay for MECS/products	If not, why?			Household
58	Financial resources	Earning an income from MECS	What type of enterprise do you own/manage?		Economic Context	Household/Organization
59	Financial resources	Earning an income from MECS	Do you get an adequate income from the enterprise?	Yes No	Economic Context	Household/Organization
60	Financial resources	Earning an income from MECS	What are the main expenses?		Economic Context	Household/Organization
61	Financial resources	Earning an income from MECS	Do you regularly make a profit?	Yes No	Economic Context	Household/Organization
62	Financial resources	Earning an income from MECS	How many customers do you have?		Economic Context	Household/Organization
63	Financial resources	Earning an income from MECS	Is the number adequate for maintaining the business?	Yes No	Economic Context	Household/Organization
64	Financial resources	Earning an income from MECS	What are the challenges of running the enterprise?		Economic Context	Household/Organization
65	Financial resources	Earning an income from MECS	How do you overcome/cope with these challenges?		Economic Context	Household/Organization
66	Financial resources	Earning an income from MECS	Do you receive any support to address these challenges?	Yes No	Economic Context	Household/Organization
67	Financial resources	Earning an income from MECS	If yes, from whom?		Economic Context	Household/Organization
68	Financial resources	Earning an income from MECS	Do you think it makes a difference if the owner/manager is woman or man to own and manage such an enterprise and make a profit?	Yes No	Economic Context	Household/Organization
69	Financial resources	Earning an income from MECS	If yes, please explain		Economic Context	Household/Organization
70	Financial resources	Earning an income from MECS	You face scarcity of funds for starting a new business	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Economic Context	Household/Organization

71	Financial resources	Earning an income from MECS	Additional income is needed to support family expenses	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Economic Context	Household
72	Financial resources	Earning an income from MECS	Lack of access to capital/microfinance from banks	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Economic Context	Household/Organization
73	Financial resources	Earning an income from MECS	In general, during your menstrual period, would you avoid participating in income-generating activities?	01 = Yes 02 = No	Health	Household/Organization
74	Financial resources	Earning an income from MECS	Due to your last menstrual period, were there any workdays in the last month that you did not attend?	01 = Yes 02 = No	Health	Organization
75	Financial resources	Earning an income from MECS	On average, how many days of work you lost in caring for elders/children in the 12 months?	Did not miss a single day in the last 1 year Missed 1-3 days in the last 1 year Missed 4-7 days in the last 1 year Missed 8-10 days in the last 1 year More than 10 days in the last 1 year	Time and Labor	Organization

Appendix 7: Survey questions for Domain 2: Access to MECS-related resources, Sub-domain 2.6: Social capital

Domain 2: Access to resources related to modern energy cooking services						
Domain 2.6: Social capital						
QN	Domain	Theme	Gender relevant questions	Response options	Other relevant domains	Household/Organization
1	Social capital	Community groups with possible MECS implications	Have you ever heard/received information about types of cooking fuels, advantages and disadvantages of cooking fuels, health and environmental impacts, clean cooking and MECS.	Yes No	Knowledge	Household
2	Social capital	Community groups with possible MECS implications	If yes, from whom/where? (select all that apply)	Husband/partner Wife/partner Father Mother Sister Brother Woman relative Man relative Friend Teacher Book Magazine Radio TV Social media Traders or Business Association Professional Association (doctors, engineers, teachers, etc.) Trade Union or labour Union Neighbours Village committee Religious or spiritual group Political group or movement Finance, credit or savings group Health group Clean cooking/modern energy cooking group NGO or civic group	Knowledge	Household

				Ethnic-based community group Other, please specify		
3	Social capital	Social support for accessing cooking fuels/MECS information	Did you share the information about types of cooking fuels, advantages and disadvantages of cooking fuels, health and environmental impacts, clean cooking and MECS with other household members?	Yes No	Knowledge	Household
4	Social capital	Social support for accessing cooking fuels/MECS information	Did you share the information about citizen's rights related to clean cooking services with other household members?	Yes No	Knowledge	Household
5	Social capital	Social support for accessing cooking fuels/MECS information	Did you share the information about Standards related to the clean cooking services with other household members?	Yes No	Knowledge	Household
6	Social capital	Community groups with possible MECS implications	Is there a trade and business association group in your community?	Yes No Don't know		Household
7	Social capital	Community groups with possible MECS implications	Is there a political group in your community?	Yes No Don't know		Household
8	Social capital	Community groups with possible MECS implications	Are there any other groups in your community?	Yes No Don't know		Household
9	Social capital	Community groups with possible MECS implications	If yes, please specify			Household
10	Social capital	Community groups with possible MECS implications	Are you a member in the trade and business association group in your community?	Yes No	Public Participation	Household

11	Social capital	Community groups with possible MECS implications	Are you a member in the political group?	Yes No	Public Participation	Household
12	Social capital	Community groups with possible MECS implications	Are you a member in any other groups?	Yes No	Public Participation	Household
13	Social capital	Community groups with possible MECS implications	If yes, please specify		Public Participation	Household
14	Social capital	Community groups with possible MECS implications	If not, please explain		Public Participation	Household
15	Social capital	Social support for accessing cooking fuels/MECS information	Are you a member in a credit or microfinance group?	Yes No	Financial Resources and Physical Assets; Participation	Household
16	Social capital	Social support for accessing cooking fuels/MECS information	Is there a cooking fuel/MECS-related group in your community?	Yes No Don't know	Knowledge	Household
17	Social capital	Social support for accessing cooking fuels/MECS information	If yes, are you a member in this group?	Yes No	Public Participation	Household
18	Social capital	Social support for accessing cooking fuels/MECS information	I can't participate in a cooking fuels/MECS community group. There are no community groups.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public Participation; Social Context	Household
19	Social capital	Social support for accessing cooking fuels/MECS information	Are you a member of any type of association, group or club which holds regular meetings?	Yes No	Public Participation	Household

20	Social capital	Social support for accessing cooking fuels/MECS information	If yes, what type of group is it?	Economic/ producer group Religious/ social group Finance/ savings group Voluntary group for community activities Educational group Other	Public Participation	Household
21	Social capital	Social support for accessing cooking fuels/MECS information	I know someone in my community who can give me information about clean cooking/MECS	Yes No	Knowledge	Household
22	Social capital	Social support for accessing cooking fuels/MECS information	If yes, please specify		Knowledge	Household
23	Social capital	Social support for improving cooking fuel/MECS	I have someone who I can talk to about problems related cooking fuel/MECS	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household
24	Social capital	Social support for improving cooking fuel/MECS	Which of the following people can you talk to about problems related to cooking fuel/MECS? (select all that apply)	Family member Friend Neighbour/other community member Hired help	Social context	Household
25	Social capital	Social support for improving cooking fuel/MECS	I know leaders in the community who I can talk to about issues related to cooking fuel/clean cooking services.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household
26	Social Capital	Social support for improving cooking fuel/MECS	When a cooking fuel/clean cooking services-related problem arises in my community, I feel comfortable reporting the problem to a local leader or authority.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household
27	Social capital	Social support for improving cooking fuel/MECS	If I shared my opinion about cooking fuel/clean cooking services-related issues with local leaders, NGOs, or government	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public Participation; Social Context	Household

			officials, it is likely that they would listen.			
28	Social capital	Social support to facilitate accessing cooking fuel/MECS	Do women in your community listen to your opinions and inputs on cooking fuel/MECS-related issues?	01 = Yes 02 = No	Public Participation; Social Context	Household
29	Social capital	Social support to facilitate accessing cooking fuel/MECS	Do men in your community listen to your opinions and inputs on cooking fuels/MECS-related issues?	01 = Yes 02 = No	Public Participation; Social Context	Household
30	Social capital	Social support to facilitate accessing cooking fuel/MECS	Do local leaders listen to your opinions and inputs on cooking fuels/MECS-related issues?	01 = Yes 02 = No	Public Participation; Social Context	Household
31	Social capital	Social support to facilitate accessing cooking fuel/MECS	I have someone who would help with household chores, such as providing childcare, so I could get cooking fuel/MEC	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Time and labour	Household
32	Social capital	Social support to facilitate accessing cooking fuel/MECS	Which of the following people would help with chores so that you could get cooking fuel/MECS? [select all that apply]	Family member Friend Neighbour/other community member Hired help	Time and labour	Household
33	Social capital	Social support to facilitate accessing cooking fuel/MECS	I have someone who could get cooking fuels/MECS for my household needs, if I asked them to.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Time and labour	Household
34	Social capital	Social support to facilitate accessing cooking fuel/MECS	Which of the following people could get cooking fuels/MECS for your household needs, if you asked them? [select all that apply]	Family member Friend Neighbour/other community member Hired help	Time and labour	Household
35	Social Capital	Social support to facilitate accessing cooking fuel/MECS	My family would encourage or help me to attend a MECS-related meeting if I wanted to go.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public Participation	Household

36	Social Capital	Social support to facilitate accessing cooking fuel/MECS	My family would encourage or help me organize an initiative to promote MECS in the community or organize an awareness campaign	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public Participation	Household
37	Social Capital	Social support to facilitate accessing cooking fuel/MECS	My family would encourage or help me to participate in a community initiative to promote MECS.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public Participation	Household
38	Social Capital	Social support to facilitate MECS-related decision-making and/or leadership	My family would encourage or help me to take on a leadership role in a MECS-focused committee or organization.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public Participation	Household
39	Social capital	Social support to facilitate MECS-related decision-making and/or leadership	If I spoke up in a community meeting about cooking fuel issues, it is likely that some others would listen.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public Participation; Social Context	Household
40	Social Capital	Social support to facilitate MECS-related decision-making and/or leadership	Are there any groups in your community that address cooking fuels/MECS-related concerns or problems/repairs and maintenance?	01 = Yes, formal groups only 02 = Yes, Informal groups only 03 = Yes, both formal and informal groups 04 = Such groups do not exist		Household
41	Social Capital	Social support to facilitate MECS-related decision-making and/or leadership	How do they address these issues? Please explain			Household
42	Social Capital	Social support to access cooking fuel/MECS	Had trouble finding someone to watch dependents (like children, sick, or elderly) so I could	01=Never 02=Sometimes 03=Often 04=Always	Time and labour	Household

			get cooking fuels/MECS for my household			
43	Social Capital	Community groups with possible MECS implications	Are you or anyone in your household a member in any of these groups or organizations, networks, associations? If yes, please select all that apply - *Those groups could be formally organized or just a group of people who get together regularly to do an activity or talk about things	Traders or Business Association Professional Association (doctors, engineers, teachers, etc.) Trade Union or Labor Union Neighbours Village committee Religious or spiritual group Political group or movement Finance, credit or savings group Health group Clean cooking/modern energy cooking group NGO or civic group Ethnic-based community group Other, please specify	Public Participation	Household
44	Social Capital	Community groups with possible MECS implications	In your household, who is the most active member in the selected group or groups?	Husband/partner Wife/partner Father Mother Sister Brother Other, please specify	Public Participation	Household
45	Social Capital	Community groups with possible MECS implications	Does he/she participate actively in the groups' decision-making	01 = Yes 02 = No	Public Participation	Household
46	Social Capital	Community groups with possible MECS implications	How do they become a member of this group?	Required to join Invited Voluntary choice Other, please explain	Public Participation	Household

47	Social Capital	Community groups with possible MECS implications	What is the main purpose of joining the group?	Improves my household's current livelihood Improves my household's access to services Important in times of emergency/in future Benefits the community Enjoyment/recreation Spiritual, social status, self-esteem Other	Public Participation	Household
48	Social Capital	Community groups with possible MECS implications	Does the group help your household get access to any of the following services? A. Education or training B. Health services C. Water supply or sanitation D. Energy, electricity services E. Cooking fuel/MECS F. Credit or savings G. Other	Yes No	Public Participation	Household
49	Social Capital	Community groups with possible MECS implications	If yes, please explain		Public Participation	Household
50	Social capital	Friends in social network who could lend help or social support in ways that may have MECS implications	If you suddenly needed a small amount of money, how many people beyond your immediate household could you turn to who would be willing to provide this money?	No one One to two people Three or four people Five or more people	Financial Resources	Household
51	Social capital	Friends in social network who could lend help or social support in ways that may have MECS implications	Of those people, how many do you think are currently able to provide this money?	No one One to two people Three or four people Five or more people	Financial Resources	Household

52	Social capital	Friends in social network who could lend help or social support in ways that may have MECS implications	Are most of these people of similar/higher/lower economic status?	Similar Higher Lower	Financial Resources	Household
----	----------------	---	---	----------------------------	---------------------	-----------

Appendix 8: Survey questions for Domain 3: Ability to exercise agency, Sub-domain 3.1: Household decision-making

Domain 3: Ability to exercise agency					
Sub-domain 3.1: Household decision making					
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domain
1	Decision-making	Control over decisions regarding cooking fuels/MECS	Members of my household have sought my input when making cooking fuel/MECS-related decisions	01 = Yes 02 = No	
2	Decision-making	Control over decisions regarding cooking fuels/MECS	Members of my household have listened to my opinions about cooking fuel/MECS issues.	01 = Yes 02 = No	
3	Decision-making	Control over decisions regarding cooking fuels/MECS	I have been present when members of my household have discussed cooking fuel/MECS-related issues.	01 = Yes 02 = No	
4	Decision-making	Control over decisions regarding cooking fuels/MECS	If my household was making a decision about cooking fuel/MECS-related issues, I can participate in the discussion.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	
5	Decision-making	Control over decisions regarding cooking fuels/MECS	I would feel comfortable expressing my opinion about cooking fuel/MECS-related issues in household discussions.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	
6	Decision-making	Control over decisions regarding cooking fuels/MECS	In this community, it is acceptable for a woman to express a different opinion than her husband in a household discussion about cooking fuel/MECS-related issues.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context
7	Decision-making	Control over decisions regarding cooking fuels/MECS	Did you participate in making cooking fuel/MECS-related decisions in your household in the past 12 months?	Yes No	
8	Decision-making	Control over decisions regarding cooking fuels/MECS	When decisions are made regarding cooking fuels/MECS in your household, typically, who makes the decision? Select all that apply.	Respondent Husband/partner Respondent and partner jointly Other, please specify	

9	Decision-making	Control over decisions regarding cooking fuels/MECS	How much input did you have in making decisions about cooking fuels/MECS in your household?	No input or input in few decisions Input into some decisions Input into most or all decisions	
10	Decision-making	Control over decisions regarding cooking fuels/MECS	To what extent do you feel you can make your own personal decisions regarding cooking fuels/MECS in your household if you want(ed)to?	Not at all Small extent Medium extent To a high extent	
11	Decision-making	Control over decisions regarding cooking fuels/MECS	How are decisions taken related to cooking fuels/MECS in your household?		
12	Decision-making	Control over decisions regarding cooking fuels/MECS	I have independently made decisions about changing the type of cooking fuel that was used in my household (for example, shifting from firewood to LPG or LPG to an EPC)	01 = Yes 02 = No 03 = My household has not made this type of decision in the past 3 years	
13	Decision-making	Control over decisions regarding cooking fuels/MECS	I have independently made decisions about repairs and maintenance of cookstoves/EPCs in my household	01 = Yes 02 = No 03 = My household has not made this type of decision in the past 3 years	
14	Decision-making	Control over decisions regarding cooking fuels/MECS	I have influenced decisions about changing the type of cooking fuel that was used in my household (for example, shifting from firewood to LPG or LPG to an EPC)	01 = Yes 02 = No 03 = My household has not made this type of decision in the past 3 years	
15	Decision-making	Control over decisions regarding cooking fuels/MECS	I have influenced decisions about repairs and maintenance of cookstoves/EPCs in my household	01 = Yes 02 = No 03 = My household has not made this type of decision in the past 3 years	
16	Decision-making	Control over decisions regarding cooking fuels/MECS	If my household had to make a decision related to cooking fuel, such as changing the type of cooking fuel or buying an EPC, I could influence that decision.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	

17	Decision-making	Control over decisions regarding cooking fuels/MECS	If my household had to make a decision related to cooking fuel, such as changing the type of cooking fuel or buying an EPC, I could independently make that decision.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	
18	Decision-making	Control over decisions regarding cooking fuels/MECS	I have independently made decisions about cooking fuel/MECS-related purchases for my household.	01 = Yes 02 = No	Financial and Productive Assets
19	Decision-making	Control over decisions regarding cooking fuels/MECS	When decisions are made regarding household expenditure related to cooking fuel/MECS, typically, who makes the decision? select all that apply	Respondent Husband/partner Respondent and partner jointly Other, please specify	Financial resources and physical assets
20	Decision-making	Control over decisions regarding cooking fuels/MECS	How much input did you have in making decisions about household expenditure related to cooking fuel/MECS?	No input or input in few decisions Input into some decisions Input into most or all decisions	Financial resources and physical assets
21	Decision-making	Control over decisions regarding cooking fuels/MECS	To what extent do you feel you can make your own personal decisions regarding household expenditure related to cooking fuel/MEC, if you want(ed) to?	Not at all Small extent Medium extent To a high extent	Financial resources and physical assets
22	Decision-making	Control over decisions regarding cooking fuels/MECS	Did you participate in household expenditure related to cooking fuels/MECS in the past 12 months?	Yes No n/a	Financial resources and physical assets
23	Decision-making	Control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities	When decisions are made regarding collection of cooking fuel (firewood, LPG cylinders, etc.), typically, who makes the decisions?	Respondent Husband/partner Respondent and partner jointly Other, please specify	
24	Decision-making	Control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities	How much input did you have in making decisions about collection of cooking fuel (firewood, LPG cylinders, etc.)?	No input or input in few decisions Input into some decisions Input into most or all decisions No decision made	

25	Decision-making	Control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities	To what extent do you feel you can make your own personal decisions regarding collection of cooking fuel (firewood, LPG cylinders, etc.), if you want(ed)to?	Not at all Small extent Medium extent To a high extent	
26	Decision-making	Control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities	To what extent do you think you can influence or change decisions regarding collection of cooking fuel (firewood, LPG cylinders, etc.), if you want(ed)to?	Not at all Small extent Medium extent To a high extent	
27	Decision-making	Control over household income and expenditures, may have cooking fuels/MECS implications (sole or joint decision-making over income and expenditures).	Who usually decides how your (husband's/partner's) earnings will be used?	Respondent Husband/partner Respondent and partner jointly Other, please specify	Financial resources and physical assets
28	Decision-making	Control over household income and expenditures, may have cooking fuels/MECS implications (sole or joint decision-making over income and expenditures).	Who usually makes decisions about making major household purchases?	Respondent Husband/partner Respondent and partner jointly Other, please specify	Financial resources and physical assets
29	Decision-making	Control over household income and expenditures, may have cooking fuels/MECS implications (sole or joint decision-making over income and expenditures).	Who usually decides how the money you earn will be used?	Respondent Husband/partner Respondent and partner jointly Other, please specify	Financial resources and physical assets
30	Decision-making	Control over time and labour spent on cooking and cooking fuel/MECS-related tasks and activities.	In your household, who allocates the task to collect and prepare firewood (or any other cooking fuel)?	Respondent Husband/partner Respondent and partner jointly Other, please specify	Time and Labour
31	Decision-making	Control over time use and time spent on household chores and satisfaction with the available time for other activities	In general, are you satisfied with the amount of time that you spend on household chores and the available time for other activities such as income	Very satisfied Moderately satisfied Neither satisfied nor dissatisfied Moderately dissatisfied Very dissatisfied	Time and Labour

		such as income generation or leisure activities.	generation, education or leisure		
32	Decision-making	Control over household assets and resources.	Who usually makes decisions related to household assets and resources?	Respondent Husband/partner Respondent and partner jointly Other, please specify	
33	Decision-making	Control over decisions related to food purchases (food for daily consumption or other household needs).	Who usually makes decisions related to food purchases (for daily consumption)?	Respondent Husband/partner Respondent and partner jointly Other, please specify	
34	Decision-making	Control over decisions related to the types of food being cooked (sole or joint decisions related to cooking specific types of dishes).	Who usually makes decisions related to the types of food being cooked?	Respondent Husband/partner Respondent and partner jointly Other, please specify	
35	Decision-making	Control over decisions related to visiting markets, bazars, family and relatives, community centres, health service, public gatherings, etc. (can go out alone with or without permission, alone with or without restrictions, alone with family members, children, etc., pay your own transportation costs, or can go out alone but you must wear certain clothes).	If I wanted to go to the [market, bazar, visit family and relatives, community centres, health service, public gatherings, etc.], I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = alone if I pay my transportation costs 05 = alone if I wear certain clothes 06 = only with accompaniment 07 = not at all	Freedom of movement

36	Decision-making	Control over decisions related to attending in-person or online training sessions.	If I wanted to attend an in-person training session, I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = alone if I pay my transportation costs 05 = alone if I wear certain clothes 06 = only with accompaniment 07 = not at all	Freedom of movement
37		Control over decisions related to attending in-person or online training sessions.	If I wanted to attend an online training session, I can attend:	01 = alone without permission 02 = alone with permission 03 = not at all	Freedom of movement
38	Decision-making	Control over decisions related to borrowing money or items from relatives, friends, NGOs, banks, financial institutions, formal or informal lenders.	In your household, who usually makes decisions related to borrowing money or items?	Respondent Husband/partner Respondent and partner jointly Other, please specify	
39	Decision-making	Control over decisions on how to use money or items borrowed from relatives, friends, NGOs, banks, financial institutions, formal or informal lenders.	In your household, who usually makes decisions on how to use money or items borrowed?	Respondent Husband/partner Respondent and partner jointly Other, please specify	
40	Decision-making	Control over decisions on how to use money or items borrowed from relatives, friends, NGOs, banks, financial institutions, formal or informal lenders.	In your household, who is usually responsible for repaying money or items borrowed?	Respondent Husband/partner Respondent and partner jointly Other, please specify	
41	Decision-making	Sources and access to information that is important for making informed decisions related to cooking fuels/MECS.	From what source did you hear information about types of cooking fuels, advantages and disadvantages of cooking fuels, health and environmental impacts, MECS technologies, etc.?	Husband/partner Wife/partner Father Mother Sister Brother Woman relative Man relative Friend Teacher Book	Knowledge and information

				Magazine Radio TV Social media Traders or Business Association Professional Association (doctors, engineers, teachers, etc.) Trade Union or labour Union Neighbours Village committee Religious or spiritual group Political group or movement Finance, credit or savings group Health group Clean cooking/modern energy cooking group NGO or civic group Ethnic-based community group Other, please specify	
--	--	--	--	---	--

Appendix 9: Survey questions for Domain 3: Ability to exercise agency, Sub-domain 3.2: Public participation

Domain 3: Ability to exercise agency						
Sub-domain 3.2: Public participation						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/ Organization
1	Public Participation	Impact of cooking with traditional fuels (including fuel collection and preparation) or (the use of MECS) on individuals' ability to participate in public life (work, school, social activities)	Due to cooking with traditional fuels (including fuel collection and preparation), were there any workdays in the last month that you did not attend?	01 = Yes 02 = No N/A	Time and labour	Household
2	Public Participation	Impact of cooking with traditional fuels (including fuel collection and preparation) or (the use of MECS) on individuals' ability to participate in public life (work, school, social activities)	I often miss out on activities I would like to do because of time spent cooking fuel collection and preparation.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Time and labour	Household
3	Public Participation	Impact of cooking with traditional fuels (including fuel collection and preparation) or (the use of MECS) on individuals' ability to participate in public life (work, school, social activities)	In the last 4 weeks, how frequently have you or anyone in your household had to change schedules or plans due to problems with cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Time and labour	Household
4	Public Participation	Leadership in cooking fuel/MECS-related community activities/meetings	Do you serve as an informal leader for cooking fuel-related issues in this community?	01 = Yes 02 = No		Household
5	Public Participation	Leadership in cooking fuel/MECS-related community activities/meetings	It would be socially acceptable for women to organize an initiative to improve access to cooking	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household

			fuel/MECS in the community			
6	Public Participation	Leadership in cooking fuel/MECS-related community activities/meetings	My family would encourage or help me organize an initiative to improve to improve access to cooking fuel/MECS in the community	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
7	Public Participation	Leadership in cooking fuel/MECS-related groups	Do you have an elected or appointed leadership position, such as president, treasurer, or secretary, in any cooking fuel/MECS-focused committee or group in which you are involved? This group may either be formal or informal. The group may focus on a variety of issues in your community, not just cooking fuel/MECS.	01 = Yes 02 = No		Household
8	Public Participation	Leadership in cooking fuel/MECS-related groups	How many F/M members are there in the committee?			Household
9	Public Participation	Leadership in cooking fuel/MECS-related groups	In this community, it is socially acceptable for women to have leadership roles in cooking fuel/MECS-focused committees	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
10	Public Participation	Leadership in cooking fuel/MECS-related groups	My family would encourage or help me to take on a leadership role in a cooking fuel/MECS-focused committee	2 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household

11	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	How many days in the past 12 months did you or anyone else in your household participate in community activities?		Time and labour	Household
12	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	Are there any community activities in which you are not allowed to participate?	Yes No, I can participate in all activities		Household
13	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	Compared to five years ago, do members of your household participate in more or fewer groups or organizations?	More Same number Fewer		Household
14	Public Participation	Representation in groups with possible cooking fuel/MECS implications	Do members mostly have the same A. Occupation B. Educational background or level	Yes No	Social context	Household
15	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	Does the group help your household get access to any of the following services? A. Education or training B. Health services C. Water supply or sanitation D. Energy, electricity services E. Cooking fuel/MECS F. Credit or savings G. Other	Yes No	Social capital	Household
16	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	Do you participate in the group's decision-making?	Yes No		Household

17	Public Participation	Voice in community activities/meetings with possible cooking fuel/MECS implications	Why are you not allowed to participate in decision-making?	Poverty Occupation Lack of education Gender Age Religion Political affiliation Ethnicity or language spoken/race/caste/tribe	Social context	Household
18	Public Participation	Voice in community activities/meetings with possible cooking fuel/MECS implications	How are leaders in these groups selected?	External entity By a small group of members By decision/vote of all members Other		Household
19	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	How do you become a member of this group?	Required to join Invited Voluntary choice Other	Social capital	Household
20	Public Participation	Voice in community activities/meetings with possible cooking fuel/MECS implications	How likely is that people who do not participate in community activities will be criticized or sanctioned?	Very likely Somewhat likely Neither likely nor unlikely Somewhat unlikely Very unlikely	Social Context	Household
21	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	Are you or anyone in your household a member in any of these groups or organizations, networks, associations? If yes, please select all that apply - *Those groups could be formally organized or just a group of people who get together regularly to do an activity or talk about things	Traders or Business Association Professional Association (doctors, engineers, teachers, etc.) Trade Union or Labor Union Neighbours Village committee Religious or spiritual group Political group or movement Finance, credit or savings group Health group Clean cooking/MECS group NGO or civic group Ethnic-based community group Other, please specify	Social Capital	Household

22	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In your household, who is the most active member in the selected group or groups?	Husband/partner Wife/partner Father Mother Sister Brother Other, please specify	Social Capital	Household
23	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	Does he/she participate actively in the group's decision-making	01 = Yes 02 = No	Social Capital	Household
24	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In the past 12 months have you done any of the following? select all that apply	A. Attend a village/neighbourhood council meeting, public hearing, or public discussion group B. Met with a politician, called him/her, or sent a letter C. Participated in a protest or demonstration D. Participated in an information or election campaign E. Alerted newspaper, radio or TV to a local problem F. Notified police or court about a local problem		Household
25	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In the past 12 months, have you worked with others in your village/neighbourhood to do something for the benefit of the community?	Yes No		Household
26	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In the past 12 months, how often have people in this village/neighbourhood gotten together to jointly petition government officials or	Never Once A few times Many times		Household

			political leaders for something benefiting the community?			
27	Public Participation	Voice in community activities/meetings with possible cooking fuel/MECS implications	How decisions are usually made in these groups	1) Decision is imposed from outside 2) The leader decides and informs the other group members 3) The leader asks group members what they think and then decides 4) The group members hold a discussion and decide together 5) Other, please explain		Household
28	Public Participation	Opportunities for participation	There are no community groups or local authorities to speak with.	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Social capital; Social context	Household
29	Public Participation	Opportunities for participation	Who decides the date, time, venue for the meetings and sets the agenda for the meeting?			Household
30	Public Participation	Opportunities for participation	What is the method used for announcing the meeting or sending out meeting invitations?			Household
31	Public Participation	Opportunities for participation	Can other staff members add or suggest items to the agenda?	Yes No		Household
32	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	Limited participation of women in local or community-level political meetings	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Social Context	Household

33	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In the past 12 months, did you participate in community planning related to cooking fuel/MECS?	Yes No n/a		Household
34	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	I have attended a community meeting related to cooking fuel/MECS.	01 = Yes 02 = No 03 = My community has not had a cooking fuel/MECS-related meeting		Household
35	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	If I wanted to go to a cooking fuel/MECS-focused public gathering, community meeting, or training near my home, I could go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Freedom of Movement	Household
36	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	If I wanted to go to a cooking fuel/MECS-focused public gathering, community meeting, or training outside of my neighbourhood, I could go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Freedom of Movement	Household
37	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	If there was a community initiative to improve access to cooking fuel/MECS, it would be socially acceptable for women to participate	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
38	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In the past year, have you gathered with members of your community to discuss cooking fuel/MECS-related problems and possible solutions?	01 = Yes 02 = No		Household

39	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In the past year, have you gathered with neighbours to discuss cooking fuel/MECS-related problems and possible solutions?	01 = Yes 02 = No		Household
40	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In the past year, have you joined with members of your community to participate in a protest/movement about cooking fuel/MECS issues?	01 = Yes 02 = No		Household
41	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In the past year, have you joined with members of your community to conduct training or awareness sessions related to cooking fuel/MECS?	01 = Yes 02 = No		Household
42	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	In the past year, have you joined with members of your community to influence media to bring awareness and attention to cooking fuel problems in the community?	01 = Yes 02 = No		Household
43	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	It is appropriate for women to attend cooking fuel/MECS-related meetings where men are present	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
44	Public Participation	Participation in community activities/meetings with possible cooking fuel/MECS implications	My family would encourage me to attend a cooking fuel/MECS-related meeting, if I wanted to go.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Capital	Household
45	Public Participation	Participation in community activities/meetings with possible	Have you actively taken up any skills development opportunities	Yes No	Knowledge	Household

		cooking fuel/MECS implications	related to cooking fuels or MECS?			
46	Public Participation	Representation in groups with possible cooking fuel/MECS implications	Are you a member of any type of association or a group which holds regular meetings?	Yes No	Social capital	Household
47	Public Participation	Representation in groups with possible cooking fuel/MECS implications	If yes, what type of group is it?	1 = Economic/producer group 2 = Religious/ social group 3 = Finance/savings group 4 = Voluntary group for community activities 5 =Educational group 6 = Other	Social capital	Household
48	Public Participation	Representation in groups with possible cooking fuel/MECS implications	Are you active in a credit or microfinance group?	Yes No	Financial resources and physical assets; Social capital	Household
49	Public Participation	Representation in groups with possible cooking fuel/MECS implications	Are you active in the political group?	Yes No	Social Capital	Household
50	Public Participation	Representation in groups with possible cooking fuel/MECS implications	What is your view about the selection and recruitment process followed in your village for committees? Do you think that the selection process effectively recruits suitable women/men candidates for different positions?	Yes No		Household
51	Public Participation	Representation in cooking fuel/MECS-related groups	Are you involved in any community group that addresses cooking fuel/MECS-related issues	01 = Yes 02 = No		Household

52	Public Participation	Representation in cooking fuel/MECS-related groups	Do men and women participate in this group?	01 = Men and women 02 = Men only 03 = Women only		Household
53	Public Participation	Representation in cooking fuel/MECS-related groups	What is the total membership of the institution?			Household
54	Public Participation	Representation in cooking fuel/MECS-related groups	How many men/members are there in the institution?			Household
55	Public Participation	Representation in cooking fuel/MECS-related groups	How many woman/members are there in the institution?			Household
56	Public Participation	Representation in cooking fuel/MECS-related groups	What are the requirements/criteria for membership?			Household
57	Public Participation	Representation in cooking fuel/MECS-related groups	Are the requirements the same for women/men members?			Household
58	Public Participation	Representation in cooking fuel/MECS-related groups	What efforts are made to increase the number of women/men members in the institution?			Household
59	Public Participation	Representation in cooking fuel/MECS-related groups	Is the membership open to all members of the community?			Household
60	Public Participation	Representation in cooking fuel/MECS-related groups	If the answer is No, please explain the reasons.			Household
61	Public Participation	Representation in cooking fuel/MECS-related groups	Is there a membership fee?			Household
62	Public Participation	Representation in cooking fuel/MECS-related groups	How much is the fee?			Household
63	Public Participation	Representation in cooking fuel/MECS-related groups	Do women members pay the fees regularly?	01 = Yes 02 = No		Household
64	Public Participation	Representation in cooking fuel/MECS-related groups	Do men members pay the fees regularly?	01 = Yes 02 = No		Household

65	Public Participation	Representation in cooking fuel/MECS-related groups	Extent to which end users/communities participate	<p>1. None/very low – No communication: No communication between government and users/communities on policy, planning and management.</p> <p>2. Low – Communication: Information on policy, planning and management is made available to users/communities.</p> <p>3. Medium-Low – Occasional Consultation: Government authorities occasionally request information, experiences and opinions of users/communities.</p> <p>4. Medium-High – Regular Consultation: Government authorities regularly request information, experiences and opinions of users/communities.</p> <p>5. High – Collaboration and accountability: Regular opportunities for users/communities to formally take part in relevant policy, planning and management processes. Processes are documented and acted upon by the responsible entities.</p> <p>6. Very High – Representation and accountability: Formal representation of</p>	Policy context	Household
----	----------------------	--	---	---	----------------	-----------

				<p>users/communities in government processes contributing to joint decision-making on important issues and activities, as appropriate. Processes are documented and subject to redress if responsible entities fail to act accordingly.</p>		
66	Public Participation	Representation in cooking fuel/MECS-related groups	Extent to which women participate	<p>1. None/very low – No communication: No communication between government and users/communities on policy, planning and management.</p> <p>2. Low – Communication: Information on policy, planning and management is made available to users/communities.</p> <p>3. Medium-Low – Occasional Consultation: Government authorities occasionally request information, experiences and opinions of users/communities.</p> <p>4. Medium-High – Regular Consultation: Government authorities regularly request information,</p>	Policy context	Household

				<p>experiences and opinions of users/communities.</p> <p>5. High – Collaboration and accountability: Regular opportunities for users/communities to formally take part in relevant policy, planning and management processes. Processes are documented and acted upon by the responsible entities.</p> <p>6. Very High – Representation and accountability: Formal representation of users/communities in government processes contributing to joint decision-making on important issues and activities, as appropriate. Processes are documented and subject to redress if responsible entities fail to act accordingly.</p>		
67	Public Participation	Voice in community activities/meetings with possible cooking fuels/MECS implications	Lack of voice in the political meetings	<p>Strongly disagree</p> <p>Disagree</p> <p>Neither agree nor disagree</p> <p>Agree</p> <p>Strongly agree</p>		Household
68	Public Participation	Voice in community activities/meetings with possible cooking fuels/MECS implications	If a decision was made in a public forum that might negatively impact your life and life of your children, would you not hesitate to stand up and protest?	<p>Strongly disagree</p> <p>Disagree</p> <p>Neither agree nor disagree</p> <p>Agree</p> <p>Strongly agree</p>	Decision-making	Household

69	Public Participation	Voice in community activities/meetings with possible cooking fuels/MECS implications	To what extent are you able to raise issues in your community that you feel strongly about, such as crime in the community, the way government programs are implemented or the way you or members of your family are treated at work or by other community members?	Level 1 = Not at all Level 2 = With great difficulty Level 3 = With some difficulty Level 4 = Fairly easily Level 5 = Very easily	Social context	Household
70	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	At a cooking fuels/MECS-related meeting where both men and women are present, women should not speak.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
71	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	At a cooking fuels/MECS-related meeting where both men and women are present, women should only speak after all the men have shared their opinions.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
72	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	At a cooking fuels/MECS-related meeting where both men and women are present, women should only speak when they are asked to do so.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
73	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	Do local leaders listen to your opinions and input on cooking fuels/MECS-related issues?	01 = Yes 02 = No	Social capital; Social context	Household
74	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	Do men in your community listen to your opinions and input on cooking	01 = Yes 02 = No	Social capital; Social context	Household

			fuels/MECS-related issues?			
75	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	Do women in your community listen to your opinions and input on cooking fuels/MECS-related issues?	01 = Yes 02 = No	Social capital; Social context	Household
76	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	Do you feel comfortable making a complaint to community leaders or local authority about cooking fuels/MECS in your community?	No, not at all comfortable Yes, but with difficulty Yes, comfortably n/a	Social context	Household
77	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	Do you feel comfortable speaking up in public to complain or raise problems related to cooking fuels/MECS in your community? (e.g. in a meeting)	No, not at all comfortable Yes, but with difficulty Yes, comfortably n/a	Social context	Household
78	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	Have you complained to the local authorities about these issues?	01 = Yes 02 = No		Household
79	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	I have influenced decisions about cooking fuels/MECS for my community. By influencing a decision, we mean that your voice and opinion are considered and affect the final decision that is taken.	01 = Yes 02 = No 03 = My community has not made decisions like this		Household
80	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	I would feel comfortable expressing my opinion about cooking fuel/MECS issues at a community meeting	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household

81	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	I would feel comfortable expressing my opinion about cooking fuel/MECS issues at a community meeting when men are present.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
82	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	If I shared my opinion about cooking fuel/MECS issues with local leaders, NGOs, or government officials, it is likely that they would listen.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social capital; Social context	Household
83	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	If I speak up publicly about cooking fuel/MECS-related concerns or problems I may be scolded or punished by members of my household.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
84	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	If I speak up publicly about cooking fuel/MECS-related concerns or problems I may be scolded or punished by members of this community.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household
85	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	If I speak up publicly about cooking fuel/MECS-related concerns or problems, I may be scolded or punished by local leaders or authorities.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household
86	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	If my community had a major decision to make about cooking fuel/MECS, I could influence that decision.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household

87	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	In general, what is the level of involvement of women in cooking fuels/MECS decision-making at community level?	None/not involved at all Rarely involved Sometimes involved Always involved		Household
88	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	In this community, it is acceptable for women to make a complaint about a cooking fuels/MECS problem to a local leader.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household
89	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	In this community, it is considered appropriate for a woman to express her opinion about cooking fuel/MECS issues at a community meeting when men are present.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Context	Household
90	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	When decisions are made regarding community cooking fuels/MECS planning, typically, who makes the decision? Select all that apply	Respondent Husband/partner Respondent and partner jointly Other, please specify		Household
91	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	How easy or difficult is it for you to raise concerns about cooking fuels/MECS in the community with local leaders, officials or other influential people?	Very easy Easy Difficult Very difficult		Household
92	Public Participation	Voice in cooking fuels/MECS-related community activities/meetings	In the community, do you feel people listen to you when making decisions about community-	Always Sometimes Rarely Never		Household

			related cooking fuel/MECS issues?			
93	Public Participation	Voice in cooking fuels/MECS-related groups	Do you feel free to express your own opinion in the meetings and discussions of this group?	01 = Yes 02 = No		Household
94	Public Participation	Voice in cooking fuels/MECS-related groups	Do you feel you have influence over the decisions that have been made by this group?	01 = Yes 02 = No		Household
95	Public Participation	Voice in cooking fuels/MECS-related groups	Have you ever been pressured to support a position you did not agree with because a family member told you to?	01 = Yes 02 = No	Social context	Household
96	Public Participation	Voice in cooking fuels/MECS-related groups	Have you ever supported a position in this group that you did not agree with because someone pressured you to?	01 = Yes 02 = No		Household
97	Public Participation	Voice in cooking fuels/MECS-related groups	Who participates in the decision-making meetings? and what is their role in the meeting? (For example: chair of the meeting, taking down notes, facilitation, keeping minutes, no specific role, etc.)			Household
98	Public Participation	Voice in cooking fuels/MECS-related groups	Is there any evidence in the minutes of the meetings that the views, opinions or suggestions made by women/men participants are being considered when making decisions?	01 = Yes 02 = No	Social context	Household

99	Public Participation	Voice in cooking fuels/MECS-related groups	Have any decisions been changed as a result of these suggestions?	01 = Yes 02 = No		Household
100	Public Participation	Voice in cooking fuels/MECS-related groups	Is there any evidence that gender-specific decisions were taken as a result of suggestions made by women/men participants?	01 = Yes 02 = No		Household
101	Public Participation	Impact of cooking with traditional fuels (including fuel collection and preparation) or (the use of MECS) on individuals' ability to participate in public life (work, school, social activities)	Due to cooking with traditional fuels (including fuel collection and preparation), were there any workdays in the last month that you did not attend?	01 = Yes 02 = No N/A	Time and labour	Organization
102	Public Participation	Impact of cooking with traditional fuels (including fuel collection and preparation) or (the use of MECS) on individuals' ability to participate in public life (work, school, social activities)	I often miss out on activities I would like to do because of time spent cooking fuel collection and preparation.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Time and labour	Organization
103	Public Participation	Impact of cooking with traditional fuels (including fuel collection and preparation) or (the use of MECS) on individuals' ability to participate in public life (work, school, social activities)	In the last 4 weeks, how frequently have you had to change schedules or plans due to problems with cooking fuel?	0=never (0 times) 1=rarely (1-2 times) 2=sometimes (3-10 times) 3=always (more than 10 times)	Time and labour	Organization
104	Public Participation	Participation in activities/training related to cooking fuel/MECS implications	Have you actively taken up any skills development opportunities related to cooking fuels or MECS?	Yes No	Knowledge	Organization
105	Public Participation	Representation in company/organization/institution with possible cooking fuel/MECS implications	What is your view about the selection and recruitment process followed in your company?	Yes No		Organization

			Do you think that the selection process effectively recruits suitable women/men candidates for different positions?			
106	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Who participates in the decision-making meetings? and what is their role in the meeting? (For example: chair of the meeting, taking down notes, facilitation, keeping minutes, no specific role, etc.)			Organization
107	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Is there any evidence in the minutes of the meetings that the views, opinions or suggestions made by women/men participants are being considered when making decisions?	01 = Yes 02 = No		Organization
108	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Have any decisions been changed as a result of these suggestions?	01 = Yes 02 = No		Organization
109	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Is there any evidence that gender-specific decisions were taken as a result of suggestions made by women/men participants?	01 = Yes 02 = No		Organization
110	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Do you feel you have influence over the decisions that have been made?	01 = Yes 02 = No		Organization
111	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Have you ever supported a position that you did not agree	01 = Yes 02 = No		Organization

			with because someone pressured you to?			
112	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Who participates in the decision-making meetings? and what is their role in the meeting? (For example: chair of the meeting, taking down notes, facilitation, keeping minutes, no specific role, etc.)			Organization
113	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Is there any evidence in the minutes of the meetings that the views, opinions or suggestions made by women/men participants are being considered when making decisions?	01 = Yes 02 = No		Organization
114	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Have any decisions been changed as a result of these suggestions?	01 = Yes 02 = No		Organization
115	Public Participation	Voice in cooking fuels/MECS-related company/organization/institution	Is there any evidence that gender-specific decisions were taken as a result of suggestions made by women/men participants?	01 = Yes 02 = No		Organization

Appendix 10: Survey questions for Domain 3: Ability to exercise agency, Sub-domain 3.3: Freedom of movement

Domain 3: Ability to exercise agency						
Sub-domain 3.3: Freedom of movement						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/Organization
1	Freedom of movement	Freedom to access markets	If I wanted to go to the market in my village, I will go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all		Household/Organization
2	Freedom of movement	Freedom to access markets	In your community, women are expected to be accompanied when going to the market during the day	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/Organization
3	Freedom of movement	Freedom to access markets	In your community, women are expected to be accompanied when going to the market in the evening	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/Organization
4	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres, repairs and maintenance facilities, etc.)	In your community, women are expected to be accompanied when going to buy/collect cooking fuels/MECS during the day	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household/Organization
5	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres,	In your community, women are expected to be accompanied when going to buy/collect	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household/Organization

		repairs and maintenance facilities, etc.)	cooking fuel/MECS in the evening			
6	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres, repairs and maintenance facilities, etc.)	If I need to buy or collect cooking fuel from a nearby area during the day , I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Ability to access MECS	Household/Organization
7	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres, repairs and maintenance facilities, etc.)	If I need to buy or collect cooking fuel from a nearby area in the evening , I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Ability to access MECS	Household/Organization
8	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres, repairs and maintenance facilities, etc.)	If I need to buy or collect cooking fuel from a location far away from my home during the day , I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Ability to access MECS	Household/Organization
9	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres, repairs and maintenance facilities, etc.)	If I need to buy or collect cooking fuel from a location far away from my home in the evening , I can go:	2 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Ability to access MECS	Household/Organization
10	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres, repairs and maintenance facilities, etc.)	If I need to go to a nearby repairs and maintenance facility during the day , I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Ability to access MECS	Household/Organization

11	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres, repairs and maintenance facilities, etc.)	If I need to go to a nearby repairs and maintenance facility in the evening , I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Ability to access MECS	Household/Organization
12	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres, repairs and maintenance facilities, etc.)	If I need to go to a repairs and maintenance facility that is far away from my home during the day , I can go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Ability to access MECS	Household/Organization
13	Freedom of movement	The ability to move freely to access MECS service locations, such as distribution centres, repairs and maintenance facilities, etc.)	If I need to go to a repairs and maintenance facility that is far away from my home in the evening , I can go:	2 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Ability to access MECS	Household/Organization
14	Freedom of movement	The ability to move freely to access MECS-related public activities	In your community, women are expected to be accompanied, if they wanted to go to a nearby cooking fuel/MECS-focused public gathering, community meeting, or training during the day	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household/Organization
15	Freedom of movement	The ability to move freely to access MECS-related public activities	In your community, women are expected to be accompanied, if they wanted to go to a cooking fuel/MECS-focused public gathering, community	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household/Organization

			meeting, or training outside their neighbourhood during the day			
16	Freedom of movement	The ability to move freely to access MECS-related public activities	In your community, women are expected to be accompanied, if they wanted to go to a nearby cooking fuel/MECS-focused public gathering, community meeting, or training in the evening	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household/Organization
17	Freedom of movement	The ability to move freely to access MECS-related public activities	In your community, women are expected to be accompanied, if they wanted to go to a cooking fuel/MECS-focused public gathering, community meeting, or training outside their neighbourhood in the evening	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social context	Household/Organization
18	Freedom of movement	The ability to move freely to access MECS-related public activities	If I wanted to go to a cooking fuel/MECS-focused public gathering, community meeting, or training near my home during the day , I could go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Public participation	Household/Organization
19	Freedom of movement	The ability to move freely to access MECS-related public activities	If I wanted to go to a cooking fuel/MECS-focused public gathering, community meeting, or training near my home in the	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Public participation	Household/Organization

			evening, I could go:			
20	Freedom of movement	The ability to move freely to access MECS-related public activities	If I wanted to go to a cooking fuel/MECS-focused public gathering, community meeting, or training outside of my neighbourhood during the day , I could go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Public participation	Household/Organization
21	Freedom of movement	The ability to move freely to access MECS-related public activities	If I wanted to go to a cooking fuel/MECS-focused public gathering, community meeting, or training outside of my neighbourhood in the evening , I could go:	01 = alone without telling anyone 02 = alone if I tell someone 03 = alone with permission 04 = only with accompaniment 05 = not at all	Public participation	Household/Organization

Appendix 11: Survey questions for Domain 4: Multi-level enabling environment, Sub-domain 4.1: Social context

Domain 4: Multi-level enabling environment						
Sub-domain 4.1: Social context						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/ Organization
1	Social context	Attitudes toward women	Lack of role models to mobilize and motivate women for business	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree		Organization
2	Social context	Attitudes toward women	Women have gained respect and power within the household and in the society	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree		Household/ Organization
3	Social context	Attitudes toward women	You have now managed to change the mindset of elderly women in your own house and community towards the independence of women	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Norms	Household/ Organization
4	Social context	Attitudes toward women	In your community, have there been any changes in gender roles – such as a reduction in the workload for women and girls, engagement of men in cooking fuel collection and preparation/MECS-related activities etc.?	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Time and labour, Norms	Household
5	Social context	Attitudes toward women	Has there been an adjustment in the attitudes of men and women in the community supporting a change in women's and men's work roles?	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Time and labour, Norms	Organization
6	Social Context	Attitudes toward women	Hindrances due to the traditional outlook that women are meant for household chores and traditional tasks	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Time and labour, Norms	Household

7	Social Context	Attitudes toward women	Do you think that women/men staff have different abilities or are better suited for specific fields of work (such as technical, operational, fieldwork?)	Yes No		Organization
8	Social context	Group solidarity	I am confident that members of my community will work with one another to achieve cooking fuel/MECS-related goals.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
9	Social context	Group solidarity	People in this community would be willing to contribute time/labour, money, or other resources toward common cooking fuel/MECS-related goals	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
10	Social context	Group solidarity	If there was a cooking fuel/MECS-related problem in this community, it is likely that people would cooperate to try to solve the problem.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
11	Social context	Group solidarity	Most people in this community would be willing to help each other with cooking fuel/MECS-related projects.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
12	Social context	Group solidarity with possible cooking fuel/MECS-related implications	If there is a problem that affects the entire community, people in this community would help each other to address the issue	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
13	Social Context	Group solidarity with possible cooking fuel/MECS-related implications	Does this community group work or interact with other groups with similar goal outside the village/ neighbourhood?	No Yes, occasionally Yes, frequently	Public participation	Household/ Organization
14	Social Context	Group solidarity with possible cooking fuel/MECS-related implications	Does this community group work or interact with other groups with different goals in the village/ neighbourhood?	No Yes, occasionally Yes, frequently	Public participation	Household/ Organization

15	Social Context	Group solidarity with possible cooking fuel/MECS-related implications	Does this community group work or interact with other groups with different goals outside the village/ neighbourhood?	No Yes, occasionally Yes, frequently	Public participation	Household/ Organization
16	Social Context	Group solidarity with possible cooking fuel/MECS-related implications	How well do people in your village/neighbourhood help each other out these days?	Always helping Helping most of the time Helping sometimes Rarely helping Never helping	Public participation	Household/ Organization
17	Social Context	Group solidarity with possible cooking fuel/MECS-related implications	What proportion of people in this village/neighbourhood contribute time or money toward common development goals	Everyone More than half About half Less than half No one	Public participation	Household/ Organization
18	Social Context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	To what extent have any changes in your experience and role as a woman/man with other women and men in the community been due to engagement in this cooking fuel/MECS-related program or activities?	A lot Somewhat A little Not at all		Household/ Organization
19	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In your opinion is it acceptable or unacceptable to shame/mock a man in the following situations? [if he is cooking, if he is cleaning the house or compound, if he is washing clothes for other household members, if he is taking care of children, if he is taking care of a dependent/ill adult, if he is washing dishes, if he is collecting wood/fuel, if he is fetching water]	0=Unacceptable 1=acceptable		Household
20	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	I believe that only men should be leaders in cooking fuels/MECS initiatives in my community.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Organization

21	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Men in my community should support women's leadership in cooking fuel/MECS-related organizations.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Organization
22	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Women in my community should support women's leadership in cooking fuel/MECS-related organizations.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Organization
23	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In this community, it is women more often than men who are expected to do most of the cooking	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
24	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In this community, it is women more often than men who are expected to collect cooking fuel (firewood or any other cooking fuel such as an LPG cylinder)	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
25	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In this community, it is women more often than men who are expected to wash clothes that become dirty as a result of collecting or cooking with firewood	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Time and labour	Household/ Organization

26	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Even if women were trained, it would be socially unacceptable for women to do repairs and maintenance for cookstoves, EPCs, ecookers, etc.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Time and labour	Household/ Organization
27	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	It is appropriate for women to attend cooking fuel/MECS-related meetings where men are present	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public participation	Household/ Organization
28	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In this community, it is considered appropriate for a woman to express her opinion about cooking fuel/MECS-related issues at a community meeting when men are present.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public participation	Household/ Organization
29	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	At a cooking fuel/MECS-related meeting where both men and women are present, women should only speak when they are asked to do so.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public participation	Household/ Organization
30	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	At a cooking fuel/MECS-related meeting where both men and women are present, women should only speak after all the men have shared their opinions.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public participation	Household/ Organization
31	Social context	Norms (cooking fuel/MECS-related practices, labour,	At a cooking fuel/MECS-related meeting where both men and women are present, women should not speak.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public participation	Household/ Organization

		decision-making, and community participation)				
32	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In this community, it is acceptable for a woman to express a different opinion than her husband in a household discussion about cooking fuel/MECS-related issues.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Decision-making	Household
33	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In this community, it is acceptable for a woman to express a different opinion than her husband about cooking fuel/MECS-related issues in front of people outside of the family.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Decision-making; Social context	Household
34	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In this community, it is socially acceptable for women to have leadership roles in cooking fuel/MECS-focused committees or organizations	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public participation	Household/ Organization
35	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In this community, it is acceptable for women to bring a complaint about a cooking fuel/MECS-problem to a local leader.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public participation	Household/ Organization
36	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	It would be socially acceptable for women to organize an initiative to improve access to cooking fuel/MECS in the community	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public participation	Household/ Organization

37	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	If there was a community initiative to improve cooking fuel/MECS, it would be socially acceptable for women to participate	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public participation	Household/ Organization
38	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	In this community, women are expected to be accompanied when going to locations to buy/collect cooking fuel or access MECS	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Freedom of movement	Household/ Organization
39	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Women in my community face the risk of being hit by their husbands or other family members if they fail to complete cooking/cooking fuel-related chores.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Safety	Household
40	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Women in my community face the risk of being hit by their husbands or other family members if they argue with the head of their households/another family member about cooking fuel/MECS-related issues.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Safety	Household
41	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Women in my community face the risk of being hit by their husbands or other family members if they argue with neighbours or other people in the community about cooking fuel/MECS-related issues.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Safety	Household
42	Social context	Norms (cooking fuel/MECS-related practices, labour,	In general, what is the level of involvement of women, in cooking fuel/MECS-related decision-making at household level?	None/not involved at all Rarely involved Sometimes involved Always involved	Decision-making	Household

		decision-making, and community participation)				
43	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Women in my community face the risk of someone making sexual comments or saying obscene things to them when they go to a cooking fuel/MECS-related meeting	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Safety	Household/ Organization
44	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Women in my community face the risk of experiencing harassment, such as being called by rude names, yelling, or shaming, if they go to a cooking fuel/MECS-related meeting	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Safety	Household/ Organization
45	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Women in my community face the risk of experiencing harassment, such as being called by rude names, yelling, or shaming, if they speak up in a cooking fuel/MECS-related meeting	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Safety	Household/ Organization
46	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Women in my community face the risk of being hit by their husbands or other family members if they go to collect/buy cooking fuel without telling someone or stay out too long.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Safety	Household/ Organization
47	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Among people you know, how many think that cooking fuel collection is a woman's responsibility	All Most Few Nobody		Household/ Organization

48	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Among people you know, how many think that promoting MECS is only a men's responsibility	All Most Few Nobody		Household/ Organization
49	Social context	Norms (cooking fuel/MECS-related practices, labour, decision-making, and community participation)	Among people you know, how many think that repairs and maintenance of cookstoves, EPCs, ecookers, etc. is only men's responsibility	All Most Few Nobody		Household/ Organization
50	Social context	Norms and attitudes around group participation	Why are you not allowed to participate in cooking fuel/MECS-related meeting?	Poverty Occupation Lack of education Gender Age Religion Political affiliation Ethnicity or language spoken/race/caste/tribe	Public participation	Household/ Organization
51	Social context	Shared goals	Community members and I share common goals for improving cooking fuel/MECS in this community.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
52	Social context	Shared goals	The cooking fuel/MECS-related goals that I share with my community motivate me to work with others, even when that is challenging.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
53	Social context	Social harmony	Cooking fuel/MECS-related issues, lead to a lot of fights in my community	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
54	Social context	Social harmony	There are unresolved conflicts about cooking fuel/MECS in this community.	1 = Strongly disagree 02 = Disagree 03 = Agree		Household/ Organization

				04 = Strongly agree		
55	Social context	Social harmony	In this community, when cooking fuel/MECS-related problem arises, members of the community may blame, accuse, or criticize each other	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household/ Organization
56	Social context	Social harmony	Argued with household member over issues related to cooking fuel/MECS	Never Sometimes Often Always		Household
57	Social context	Social harmony	To what extent is cooking fuels/MECS considered a source of conflict/tension in your household?	Very much Somewhat Not much Not at all		Household
58	Social context	Social harmony with possible cooking fuel/MECS implications	Walking around after dark	01 = Not a problem 02 = Somewhat a problem 03 = A serious problem		Household/ Organization
59	Social context	Social harmony with possible cooking fuel/MECS implications	In general, do you agree or disagree with the following statement: Most people who live in this village/neighbourhood can be trusted	Agree strongly Agree somewhat Neither agree nor disagree Disagree somewhat Disagree strongly		Household/ Organization
60	Social context	Social harmony with possible cooking fuel/MECS implications	In general, do you agree or disagree with the following statement: In this village/neighbourhood, one has to be alert or someone is likely to take advantage of you	Agree strongly Agree somewhat Neither agree nor disagree Disagree somewhat Disagree strongly		Household/ Organization
61	Social context	Social harmony with possible cooking fuel/MECS implications	In general, do you agree or disagree with the following statement: Most people in this village/neighbourhood are willing to help if you need it	Agree strongly Agree somewhat Neither agree nor disagree Disagree somewhat Disagree strongly		Household/ Organization

62	Social context	Social harmony with possible cooking fuel/MECS implications	In general, do you agree or disagree with the following statement: In this village/neighbourhood, people generally do not trust each other in matters of lending and borrowing money	Agree strongly Agree somewhat Neither agree nor disagree Disagree somewhat Disagree strongly		Household/ Organization
63	Social context	Social harmony with possible cooking fuel/MECS implications	Do you think that over the last five years, the level of trust in this village/neighbourhood	Improved Got worse Remained the same		Household
64	Social context	Social harmony with possible cooking fuel/MECS implications	In your opinion, is this village/neighbourhood generally peaceful or marked by violence?	Very peaceful Moderately peaceful Neither peaceful nor violent Moderately violent Very violent	Safety	Household/ Organization
65	Social context	Social harmony with possible cooking fuel/MECS implications	In general, how safe from crime and violence do you feel when you are alone at home?	Very safe Moderately safe Neither safe nor unsafe Moderately unsafe Very unsafe	Safety	Household
66	Social context	Social harmony with possible cooking fuel/MECS implications	How safe do you feel when walking down your street alone after dark?	Very safe Moderately safe Neither safe nor unsafe Moderately unsafe Very unsafe	Safety	Household/ Organization
67	Social context	Social inclusion	Age, class, religion, or disability can affect women's access, participation or status in the community, and specifically in relation to cooking fuel/MECS?	Agree strongly Agree somewhat Neither agree nor disagree Disagree somewhat Disagree strongly		Household/ Organization
68	Social context	Social inclusion	Have you ever felt that there is discrimination in cooking fuel supply or access to MECS to certain localities or communities? (discrimination by sex and cultural, or any other identity (physical, social or economic), in access to water supply and sanitation	Yes No	Legal frameworks and governance	Household

			by location/neighbourhood/community)			
69	Social context	Social inclusion	If yes, what are the reasons?			Household
70	Social context	Social inclusion	Have you faced any discrimination?	Yes No		Household
71	Social context	Social inclusion	If yes, how?			Household
72	Social context	Social inclusion	What steps did you take to make a complaint or seek help to deal with the situation? please explain			Household
73	Social context	Social inclusion	What was the result of this? Please explain.			Household
74	Social context	Social inclusion	Was the situation resolved?	Yes No		Household
75	Social context	Social inclusion	If yes, please explain			Household
76	Social context	Social inclusion	If not, please explain			Household
77	Social context	Social inclusion	If the situation was resolved, do you have access now to cooking fuel/MECS	Yes No N/A		Household
78	Social context	Representation in groups with possible cooking fuel/MECS implications	Do members of community groups mostly have the same A. Occupation B. Educational background or level	Yes No	Public participation	Organization
79	Social context	Representation in groups with possible cooking fuel/MECS implications	Are members mostly of the same political viewpoint or belong to the same political party?	Yes No	Public participation	Organization
80	Social context	Representation in groups with possible cooking fuel/MECS implications	Are some members richer or poorer than others, or do they have mostly the same income level?	Mostly same income level Mixed rich/poor	Public participation	Organization
81	Social context	Group solidarity with possible cooking fuel/MECS implications	Does this group work or interact with other groups with similar goals in the village/neighbourhood?	No Yes, occasionally Yes, frequently	Public participation	Organization

82	Social context	Representation in groups with possible cooking fuel/MECS implications	Limited or negligible representation in political arena	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Public participation	Organization
----	----------------	---	---	--	----------------------	--------------

Appendix 12: Survey questions for Domain 4: Multi-level enabling environment, Sub-domain 4.2: Policy context

Domain 4: Multi-level enabling environment						
Sub-domain 4.2: Policy context						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains or sub-domains	Household/ Organization
1	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	Public budgets that provide specific funding to ensure access to MECS to meet individuals' needs of vulnerable and marginalized groups (including women's needs)	Yes, to a large extent To a limited extent No		Household
2	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	How many policies reviewed have a budget allocated for procedures or mechanisms for identifying and integrating gender concerns (such as consultations, workshops, meetings)?			Household/ Organization
3	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	What is the amount (specify local currency and US\$ equivalent) allocated for this purpose?			Household/ Organization
4	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	Are the policies national, sub-national or sectoral?			Household/ Organization
5	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	What is the budget for M&E in local currency and US\$?			Household/ Organization

6	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	Is it adequate for M&E gender results?	Yes No		Household/ Organization
7	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	If not, please explain			Household/ Organization
8	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	Are any additional costs (beyond M&E budget) for assessing gender indicators and outcomes made available?	Yes No		Household/ Organization
9	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	If yes, please provide details			Household/ Organization
10	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	What has been the level of community awareness campaigns and trainings conducted on gender equality?	None at all Very few sessions conducted Significant number of sessions Wide coverage of trainings		Household/ Organization

11	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	Are any efforts being made to create public awareness about gender equality with regard to MECS?			Household/ Organization
12	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	Which public or private agency is responsible for this?			Household/ Organization
13	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	What methods are used to raise awareness?			Household/ Organization

14	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	Is feedback taken from women/men members of the community?			Household/ Organization
15	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	What kind of feedback is received?			Household/ Organization
16	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	Is there any proof that such feedback was taken into account?			Household/ Organization

17	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	Are you aware of the awareness campaign for gender equality related to MECS?	Yes No		Household/ Organization
18	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	What type of awareness materials or campaign have you seen?			Household/ Organization
19	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	What do you think about the messages? Are the messages appropriate?	Yes No		Household/ Organization

20	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	Are they easy to understand?	Yes No		Household/ Organization
21	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	Does the Ministry or Department have a programme or project for creating public awareness about gender-specific objectives and commitments in the MECS policy?	Yes No		Household/ Organization
22	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	If yes, which method is used for creating public awareness about the gender-specific objectives and commitments of the MECS policy?	Social media Publications Websites Audiovisuals Billboards Brochures Flyers Other, please specify		Household/ Organization

23	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	What are the key gender messages used for creating public awareness?			Household/ Organization
24	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	Does the ministry/department collect feedback from women/men members of the public regarding the effectiveness of the methods for creating public awareness?	Yes No		Household/ Organization
25	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	If yes, what methods are used? (For example: through surveys, etc.)			Household/ Organization

26	Policy context	Capacity building for embedding gender equality in the MECS sector includes technical skills, awareness, clear responsibilities, time, and human resources to implement gender-sensitive MECS policies or programs at governmental, local, institutional, or service provider levels.	What kind of feedback has the ministry/department received? (For example: Is the content easy to understand? Is it useful?)			Household/ Organization
27	Policy context	Governance structures for diverse participation in the MECS sector	Number of women/men staff members (F/M in employment related to the MECS sector)			Organization
28	Policy context	Governance structures for diverse participation in the MECS sector	Where are the vacancy positions advertised?			Organization
29	Policy context	Governance structures for diverse participation in the MECS sector	Do the vacancy announcements encourage both women/men applicants to apply for the positions?	Yes No	Economic context	Organization
30	Policy context	Governance structures for diverse participation in the MECS sector	If yes, please explain what is written in the vacancy announcement that encourages women/men applicants to apply.		Economic context	Organization
31	Policy context	Governance structures for diverse participation in the MECS sector	Are the terms of reference included in the vacancy announcement?	Yes No	Economic context	Organization
32	Policy context	Governance structures for diverse participation in the MECS sector	If yes, is there any indication in the vacancy announcement and/or the terms of reference that the job may be better suited to women/men applicants?	Yes No	Economic context	Organization

33	Policy context	Governance structures for diverse participation in the MECS sector	If yes, please explain		Economic context	Organization
34	Policy context	Governance structures for diverse participation in the MECS sector	What are the steps in the selection process? (organization level - MECS job vacancy)		Economic Context	Organization
35	Policy context	Governance structures for diverse participation in the MECS sector	Are there any differences in the selection process for women/men candidates?	Yes No	Economic Context	Organization
36	Policy context	Governance structures for diverse participation in the MECS sector	If yes, are applicants or candidates informed about the different steps in the selection process?	Yes No	Economic Context	Organization
37	Policy context	Governance structures for diverse participation in the MECS sector	Does the selection panel consist of women and men interviewers?	Yes No	Economic Context	Organization
38	Policy context	Governance structures for diverse participation in the MECS sector	Do the time and venue of the interviews/tests take into account the different needs of women/men?	Yes No	Economic Context	Organization
39	Policy context	Governance structures for diverse participation in the MECS sector	What is the process for making a complaint to the redressal or complaints committee?		Economic Context	Organization
40	Policy context	Governance structures for diverse participation in the MECS sector	Is there a functioning committee for receiving and addressing complaints in the organization?		Economic Context	Organization
41	Policy context	Governance structures for diverse participation in the MECS sector	What is the composition of the committee?		Economic Context	Organization
42	Policy context	Governance structures for diverse participation in the MECS sector	How many requests for redressal or complaints have been received and addressed in the past five years? (review documents)		Economic Context	Organization

43	Policy context	Governance structures for diverse participation in the MECS sector	Is there a policy for promotions?	Yes No	Economic Context	Organization
44	Policy context	Governance structures for diverse participation in the MECS sector	What are the criteria for promotion? Review the policy		Economic Context	Organization
45	Policy context	Governance structures for diverse participation in the MECS sector	There are mechanisms in place to identify (in a participatory manner) and address the MECS needs of vulnerable and marginalized groups (including women's needs)	Yes, to a large extent To a limited extent No		Household/ Organization
46	Policy context	Governance structures for diverse participation in the MECS sector	Integrated approaches (involving different administrations) have been adopted to support the delivery of MECS for vulnerable and marginalized groups (including women)	Yes, to a large extent To a limited extent No		Household/ Organization
47	Policy context	Governance structures for diverse participation in the MECS sector	Are there any records or documents that provide information about consultations, meetings, workshops with stakeholders for identifying gender-specific objectives, commitments and outcomes?	Yes No		Household/ Organization
48	Policy context	Governance structures for diverse participation in the MECS sector	Draw a list of consultations, meetings, workshops organized for identifying the gender-specific objectives, commitments and outcomes			Household/ Organization

49	Policy context	Governance structures for diverse participation in the MECS sector	Draw a list of the stakeholders involved in the identification of gender concerns while formulating MECS policy frameworks (for example: officers from the same ministry, other ministries, civil society organizations, subject experts, gender experts).			Household/ Organization
50	Policy context	Governance structures for diverse participation in the MECS sector	Identify key officials for individual interviews and consultations.			Household/ Organization
51	Policy context	Governance structures for diverse participation in the MECS sector	What is the coordination mechanism between the (a) national ministries that deal with MECS, (b) public/private utilities and commissions for MECS-related services, with the national ministry/agency for women's welfare?			Household/ Organization
52	Policy context	Governance structures for diverse participation in the MECS sector	Explain the coordination process			Household/ Organization
53	Policy context	Governance structures for diverse participation in the MECS sector	Is there any evidence in the records, documents, reports, of actions taken for improving MECS as a result of this coordination? Give examples	Yes No		Household/ Organization
54	Policy context	Governance structures for diverse participation in the MECS sector	If yes, give examples			Household/ Organization
55	Policy context	Laws and policies for MECS-related rights	Have you ever made a complaint to the customer service of the MECS service agency?			Household

56	Policy context	Laws and policies for MECS-related rights	Are you satisfied with the mechanism for making the complaint?			Household
57	Policy context	Laws and policies for MECS-related rights	Was your complaint dealt with?			Household
58	Policy context	Laws and policies for MECS-related rights	Are you satisfied with the time taken to solve your problem?			Household
59	Policy context	Laws and policies for MECS-related rights	Are you satisfied with the way in which the complaint was dealt with?			Household
60	Policy context	Laws and policies for MECS-related rights	Do you have any suggestions for improving the customer service for consumers?	Yes No Please explain		Household
61	Policy context	Laws and policies for MECS-related rights	Have you ever felt that there is discrimination in access to cooking fuel/MECS to certain localities or communities?	Yes No	Social context	Household
62	Policy context	Laws and policies for MECS-related rights	What are the reasons? Please explain		Social context	Household
63	Policy context	Laws and policies for MECS-related rights	Have you faced any discrimination?	Yes No	Social context	Household
64	Policy context	Laws and policies for MECS-related rights	In what way? Please explain		Social context	Household
65	Policy context	Laws and policies for MECS-related rights	What steps did you take to make a complaint or seek help to deal with the situation?		Social context	Household
66	Policy context	Laws and policies for MECS-related rights	What was the result of this?		Social context	Household
67	Policy context	Laws and policies for MECS-related rights	Was the situation resolved?	Yes No Please explain	Social context	Household
68	Policy context	Laws and policies for MECS-related rights	Do you have access now to cooking fuel/MECS?	Yes No	Social context	Household

69	Policy context	Laws and policies for MECS-related rights	What is the number and type of gender-specific declarations, position papers, guidelines resulting from major international, regional and national cooking fuel/MECS-related meetings and conferences?	Open-ended questions for interviews		Household/ Organization
70	Policy context	Laws and policies for MECS-related rights	Was there a dissemination strategy? // Yes // No a) If yes, what was it? b) If no, why? c) Was there any monitoring or follow-up of the dissemination strategy? // Yes // No d) If yes, what was the strategy? e) If no, why? f) Was there a record of the number and type of users/readers who accessed or received the documents? // Yes // No. Please explain. g) If any, what feedback was received from the users/readers?	Open-ended questions for interviews		Household/ Organization
71	Policy context	Laws and policies for MECS-related rights	There is a cooking fuel/MECS-related policy recognizing the special and differentiated needs of vulnerable and marginalized groups (including women needs)	Open-ended questions for interviews		Household/ Organization
72	Policy context	Laws and policies for MECS-related rights	Relevant policies in other sectors (e.g. social inclusion, social protection, education, health, housing) include their role in ensuring that cooking fuels/MECS are made accessible to all the population especially the most vulnerable (including women).	Open-ended questions for interviews		Household/ Organization
73	Policy context	Laws and policies for MECS-related rights	How many policies being reviewed have gender-specific objectives, commitments and	Open-ended questions for interviews		Household/ Organization

			outcomes? a) Write down the gender-specific objectives, commitments and outcomes for each policy. b) Review the gender-specific objectives, commitments and outcomes and assign these categories to the policies; Gender Sensitive (GS), Gender Responsive (GR), Gender Transformative (GT).			
74	Policy context	Laws and policies for MECS-related rights	What kind of executive orders are issued to implement the gender-specific objectives and commitments in the policy? (For example: directives, declarations, issuances, rules, orders of government department or ministry. Write down details for each policy).	Open-ended questions for interviews		Household/ Organization
75	Policy context	Laws and policies for MECS-related rights	What is the total number of cooking fuels/MECS projects/programmes have been reviewed? a) Are the projects national, sub-national or sectoral? b) How many projects/programmes that have been reviewed have collected, analysed and used disaggregated data about the local population in the planning process? c) What percentage of the total budget of the project or programme was allocated to the collection of disaggregated data? d) What indicators were used for collection of information about the local population? Draw a list of the indicators used. e) Was the data	Open-ended questions for interviews		Household/ Organization

			disaggregated by sex? / / Yes // No. Please explain. f) Is there any evidence in the documents or reports that the data was analysed and used in the planning process? Please explain.			
76	Policy context	Laws and policies for MECS-related rights	Out of the total number of cooking fuel/MECS-related projects reviewed, how many are implementing M&E systems? a) For projects using M&E systems, describe how the M&E system is implemented. b) For projects not using M&E systems, explain the reasons for not implementing an M&E system. c) What are the differences in the level of achievement of gender outcomes in projects using an M&E system as compared with projects not using an M&E system? Please explain.	Open-ended questions for interviews		Household/ Organization
77	Policy context	Laws and policies for MECS-related rights	Identify the gender-specific indicators in M&E plans. a) Are the indicators Gender Sensitive (GS), Gender Responsive (GR), Gender Transformative (GT)	Open-ended questions for interviews		Household/ Organization
78	Policy context	Laws and policies for MECS-related rights	What gender outcomes are recorded or measured in M&E reports? a) Are the gender outcomes achieved? // Yes // No b) What is the number and type of outcomes that have been met/not met? If they have not been met, specify the reasons. c) What are the constraints in integrating and assessing gender indicators and outcomes? d) What	Open-ended questions for interviews		Household/ Organization

			measures have been taken to overcome these constraints? e) What measures are taken to ensure that efforts are made to achieve the gender outcomes?			
79	Policy context	Laws and policies for MECS-related rights	Who has the authority to ensure that efforts to achieve gender outcomes are being made, or that they are achieved? a) How does the designated authority monitor the steps taken to achieve the gender outcomes?	Open-ended questions for interviews		Household/ Organization
80	Policy context	Laws and policies for MECS-related rights	What is the process for assessing the achievement of gender outcomes? a) Do men and women members of target groups (for example local communities) participate in the assessment? // Yes // No b) If yes, explain the process c) Was there a separate space (for example, single gender focus group) for women and men to discuss these issues and participate in this assessment? // Yes // No. Please explain.	Open-ended questions for interviews		Household/ Organization
81	Policy context	Laws and policies for MECS-related rights	What efforts are being made to ensure that cooking fuels/MECS are made accessible to all the population especially the most vulnerable (including women)? a) Identify the processes, mechanisms, directives that are being implemented to achieve this. b) What progress has been made in this regard? c) What are the sources of evidence? Can evidence be seen in reports, media, reviews?	Open-ended questions for interviews		Household/ Organization

82	Policy context	Laws and policies for MECS-related rights	How are complaints received? a) In the past year, how many complaints have you received from women/men users? b) Were you able to address these complaints? // Yes // No c) How are the complaints dealt with? Please explain the procedure. d) How much time does it take to deal with the complaint? e) Do you keep records and data of the complaints and consumers who make the complaint? // Yes // No f) Is there an increasing/decreasing trend of complaints, both from woman and man consumers? g) What kind of follow-up is done to ensure that the consumer is satisfied? h) Do you take feedback and suggestions from the consumers? // Yes // No. What is the mechanism?	Open-ended questions for interviews		Household/ Organization
83	Policy context	Laws and policies for MECS-related rights	When a cooking fuel/MECS-related problem arises in my community, I feel comfortable reporting the problem to a local leader or authority.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Social Capital	Household
84	Policy context	Governance structures for diverse participation	I can't participate in community decisions related to cooking fuel/MECS. There are no community groups or local authorities to speak with.	Completely the same Somewhat the same Somewhat different Completely different	Public Participation, Social capital	Household
85	Policy context	Availability and responsiveness of local leaders	If I shared my opinion about cooking fuel/MECS-related issues with local leaders, NGOs, or government officials, it is likely that they would listen.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Public Participation, Social capital	Household

86	Policy context	Availability and responsiveness of local leaders	Do local leaders listen to your opinions and input on cooking fuel/MECS-related issues?	01 = Yes 02 = No	Public Participation, Social capital	Household
87	Policy context	Availability and responsiveness of local leaders	To what extent do local government and local leaders take into account concerns voiced by you and people like you when they make decisions that affect you?	A lot A little Not at all		Household
88	Policy context	Laws and policies for MECS-related rights	To what extent are there measures to improve and extend services to the following populations in national cooking fuel/MECS-related policies and plans? People living in poverty Women and girls People living with disabilities Elderly people Indigenous populations Ethnic/religious minorities People disproportionately affected by climate change events	Yes/No If yes, what is the level of implementation: Not yet implemented Partially implemented Fully implemented		Household
89	Policy context	Laws and policies for MECS-related rights	Are there clearly defined procedures in laws or policies to ensure the participation of end users and communities? and what is the level of participation? Please explain	Yes No		Household
90	Policy context	Laws and policies for MECS-related rights	If yes, does law or policy specifically mention women's participation in the MECS sector?	Yes No		Household/ Organization
91	Policy context	Governance structures for diverse participation	Users/Communities level of participation	1. None/very low – No communication: No communication between government and users/communities on policy, planning and management. 2. Low –		Household/ Organization

				<p>Communication: Information on policy, planning and management is made available to users/communities.</p> <p>3. Medium-Low – Occasional Consultation: Government authorities occasionally request information, experiences and opinions of users/communities.</p> <p>4. Medium-High – Regular Consultation: Government authorities regularly request information, experiences and opinions of users/communities.</p> <p>5. High – Collaboration and accountability: Regular opportunities for users/communities to formally take part in relevant policy, planning and management processes. Processes are documented and acted upon by the responsible entities.</p> <p>6. Very High – Representation and accountability: Formal representation of users/communities in government processes contributing to joint decision-making on important issues and activities, as appropriate. Processes are documented and subject to redress if responsible entities fail to act accordingly.</p>	
--	--	--	--	---	--

92	Policy context	Governance structures for diverse participation	Women's level of participation	<p>1. None/very low – No communication: No communication between government and users/communities on policy, planning and management.</p> <p>2. Low – Communication: Information on policy, planning and management is made available to users/communities.</p> <p>3. Medium-Low – Occasional Consultation: Government authorities occasionally request information, experiences and opinions of users/communities.</p> <p>4. Medium-High – Regular Consultation: Government authorities regularly request information, experiences and opinions of users/communities.</p> <p>5. High – Collaboration and accountability: Regular opportunities for users/communities to formally take part in relevant policy, planning and management processes. Processes are documented and acted upon by the responsible entities.</p> <p>6. Very High – Representation and accountability: Formal representation of users/communities in government processes contributing to joint decision-making on</p>	Household/ Organization
----	----------------	---	--------------------------------	--	-------------------------

				important issues and activities, as appropriate. Processes are documented and subject to redress if responsible entities fail to act accordingly.		
93	Policy context	Budgeting and resource allocation targeted for promoting gender equality in the MECS sector	Are there specific measures for cooking fuel/MECS to target resources to the following populations? People living in poverty Women and girls People living with disabilities Elderly people Indigenous populations Ethnic/religious minorities People disproportionately affected by climate change events	No Yes, but measures are not applied consistently Yes, and measures are applied		Household/ Organization
94	Policy context	Laws and policies for MECS-related rights	Is the progress in improving and extending and sustaining MECS service provision specifically for women in internally displaced settings and/or refugee camps tracked and reported?	Yes No		Household/ Organization
95	Policy context	Capacity building for embedding gender equality in the MECS sector	Have human resources needs for the MECS sector been assessed in your country?	National assessments Only sub-national assessments No assessments conducted		Organization
96	Policy context	Capacity building for embedding gender equality in the MECS sector	Is gender included in the assessment?	Yes No		Organization

Appendix 13: Survey questions for Domain 4: Multi-level enabling environment, Sub-domain 4.3: Economic context

Domain 4: Multi-level enabling environment						
Sub-domain 4.3: Economic context						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains and sub-domains	Household/ Organization
1	Economic context	Access to credit or subsidies	How did your household purchase an EPC (or any other MECS)?	Direct purchase Micro-finance Subsidy Other	Financial resources and physical assets	Household
2	Economic context	Access to credit or subsidies	Are there financial schemes to make access to MECS more affordable for vulnerable groups?	No schemes exist Affordability schemes exist but are not widely used Affordability schemes exist and are widely used		Household/ Organization
3	Economic context	Access to credit or subsidies	Is there a credit or microfinance group in your community?	Yes No Don't know	Financial and productive assets	Household
4	Economic context	Access to credit or subsidies	Are you active in the credit or microfinance group?	Yes No	Participation; Social capital	Household
5	Economic context	Access to credit or subsidies	Lack of access to capital/microfinance from banks	Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree	Financial resources and physical assets	Household
6	Economic context	Access to credit or subsidies	What sources are available for you to take a loan or financial assistance to invest in MECS-related industries and enterprises?		Financial resources and productive assets	Organization
7	Economic context	Access to credit or subsidies	What are the difficulties in taking a loan or financial assistance?		Financial resources and productive assets	Organization
8	Economic context	Access to credit or subsidies	Have you ever taken a loan?	Yes No		Organization

9	Economic context	Access to credit or subsidies	From whom have you taken a loan?			Organization
10	Economic context	Access to credit or subsidies	How will you repay the money?			Organization
11	Economic context	Access to credit or subsidies	Are there any documents or agreements regarding the loan?	Yes No		Organization
12	Economic context	Access to credit or subsidies	Are you having any difficulties in returning the loan?	Yes No		Organization
13	Economic context	Access to credit or subsidies	Do you have any suggestions for improving access to loan for women/men industry/enterprise owners?	Yes No If yes, please explain		Organization
14	Economic context	Access to credit or subsidies	Have you ever experienced physical or verbal abuse when asking for a loan or financial assistance?	Yes No If yes, please explain		Household/ Organization
15	Economic context	Access to credit or subsidies	If yes, what is the frequency of these experiences?	Frequently Sometimes Never		Household/ Organization
16	Economic context	Access to credit or subsidies	What efforts have you made to complain or take action against this?			Household/ Organization
17	Economic context	Access to credit or subsidies	What was the result? Was the problem resolved?			Household/ Organization
18	Economic context	Access to credit or subsidies	Have you tried to get a loan or subsidy to access cooking fuel/MECS?	Yes No	Financial and productive assets	Household
19	Economic context	Access to credit or subsidies	If yes, then from which source?		Financial and productive assets	Household
20	Economic context	Access to credit or subsidies	What was the result?		Financial and productive assets	Household
21	Economic context	Access to credit or subsidies	If no, why? please explain		Financial and productive assets	Household
22	Economic context	Access to credit or subsidies	I could acquire money to buy an EPC, eCooker or any other MECS products by selling or renting something I own or by earning money through work.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Financial and productive assets	Household
23	Economic context	Access to credit or subsidies	I could acquire money to buy an EPC, eCooker or any other MECS products by accessing credit or participating in a savings group.	01 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Financial resources and physical assets	Household

24	Economic context	Affordability/cost of MECS	The costs of MECS in our community	is different for poor and less poor customers is different for men and women customers is different for small consumers than for large consumers is the same for all	Financial Resources and Productive Assets	Household
25	Economic context	Availability, affordability, and the ability to access MECS	What was the main reason that you were unable to access cooking fuel/MECS?	Cooking fuel/MECS are not available Too expensive Source not accessible Other, please specify	Financial Resources and Productive Assets	Household
26	Economic context	Availability, affordability, and the ability to access MECS	In your opinion, how affordable are the MECS/products that you usually use?		Financial and productive assets	Household
27	Economic context	Availability, affordability, and the ability to access MECS	Are you satisfied with the electricity tariff?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied	Financial and productive assets	Household
28	Economic context	Availability, affordability, and the ability to access MECS	Are you satisfied with the price/cost of cooking fuels/MECS?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied	Financial and productive assets	Household
29	Economic context	Availability, affordability, and the ability to access MECS	Are you satisfied with the amount of money that you spend on purchasing cooking fuel/MECS?	Scale of 1-5, with 1 being least satisfied and 5 being most satisfied	Financial and productive assets	Household
30	Economic context	Availability, affordability, and the ability to access MECS	Can you afford the cost of cooking fuel/MECS?	Yes No	Financial and productive assets	Household

31	Economic context	Availability, affordability, and the ability to access MECS	Do you find it easy or difficult to purchase cooking fuel/MECS? in terms of affordability	Scale of 1-5, with 1 being most difficult (least easy) and 5 being least difficult (most easy)	Financial and productive assets	Household
32	Economic context	Availability, affordability, and the ability to access MECS	Are you interested in MECS (such as EPCs, eCookers, etc.) but cannot buy it because of the cost?	Yes No	Financial and productive assets	Household
33	Economic context	Availability, affordability, and the ability to access MECS	Can you afford to buy MECS (such as EPCs, eCookers, etc.)?	1. Can afford 2. Cannot afford 3. Not available to buy 4. Don't know	Financial and productive assets	Household
34	Economic context	Availability, affordability, and the ability to access MECS	How many women/men headed households purchase cooking fuel/MECS regularly from service providers?	No. of woman-headed households No. of man-headed households	Financial Resources and Productive Assets	Household
35	Economic context	Availability, affordability, and the ability to access MECS	At what price are the households purchasing the cooking fuel/MECS from service providers?		Financial Resources and Productive Assets	Household
36	Economic context	Availability, affordability, and the ability to access MECS	When a cooking fuel/MECS-related problem arises, I feel comfortable reporting the problem to a service provider.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree		Household
37	Economic context	Availability, affordability, and the ability to access MECS	I am aware of the different cooking fuels/MECS options available in my community, their price, supply locations, repairs and maintenance locations.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Knowledge	Household
38	Economic context	Availability, affordability, and the ability to access MECS	In my community, women are aware of the different cooking fuels/MECS options, their price, supply locations, repairs and maintenance locations.	1 = Strongly disagree 02 = Disagree 03 = Agree 04 = Strongly agree	Knowledge	Household
39	Economic context	Availability, affordability, and the ability to access MECS	Is there a shop within 20 minutes walking distance of your home where you can buy cooking fuel/MECS (or products)?	Yes No		Household

40	Economic context	MECS-related employment and job market	Number of women/men in MECS-related employment, such as in a utility company or a selected ministry, private company, etc.		Participation	Organization
41	Economic context	MECS-related employment and job market	Number of women/men who are gaining an income from the production or supply and distribution of cooking fuel/MECS		Financial resources and productive assets	Organization
42	Economic context	MECS-related employment and job market	What type of enterprise do you own/manage?		Financial resources and productive assets	Organization
43	Economic context	MECS-related employment and job market	Do you get an adequate income from the enterprise?	Yes No	Financial resources and productive assets	Organization
44	Economic context	MECS-related employment and job market	Is it adequate for running the enterprise?	Yes No	Financial resources and productive assets	Organization
45	Economic context	MECS-related employment and job market	What are the main expenses?		Financial resources and productive assets	Organization
46	Economic context	MECS-related employment and job market	Do you regularly make a profit?	Yes No	Financial resources and productive assets	Organization
47	Economic context	MECS-related employment and job market	How many customers do you have?		Financial resources and productive assets	Organization
48	Economic context	MECS-related employment and job market	Is the number adequate for maintaining the business?	Yes No	Financial resources and productive assets	Organization
49	Economic context	MECS-related employment and job market	What are the constraints in running the enterprise?		Financial resources and productive assets	Organization
50	Economic context	MECS-related employment and job market	How do you overcome them?			Organization
51	Economic context	MECS-related employment and job market	What are the reasons for success of the enterprise?			Organization
52	Economic context	MECS-related employment and job market	Do you think it makes a difference if the owner/manager is woman or man to own and manage such an enterprise and make a profit?	Yes No Please explain		Organization

53	Economic context	MECS-related employment and job market	Number of women/men in job skills training-related to the MECS sector including training for technical and managerial roles		Participation	Organization
54	Economic context	MECS-related employment and job market	Do you currently earn income from MECS?	Yes No	Financial resources and physical assets	Household/ Organization
55	Economic context	MECS-related employment and job market	Approximate percentage of women graduates each year from MECS-specific/relevant education and training institutions/programmes		Knowledge	Organization

Appendix 14: Survey questions for Domain 4: Multi-level enabling environment, Sub-domain 4.4: Environmental context

Domain 4: Multi-level enabling environment						
Sub-domain 4.4: Environmental context						
QN	Sub-domain	Theme	Gender relevant questions	Response options	Other relevant domains	Household/ Organization
1	Environmental context	Aspects of the natural environment that affect the ability to access MECS and resources	In the past 30 days, I was afraid of getting injured because of the physical conditions while accessing cooking fuels/MECS - such as slippery conditions, rocks or thorns, uneven pathways, obstacles, etc.	1 = Never 02 = Sometimes 03 = Often 04 = Always	Health and well being	Household/ Organization
2	Environmental context	Aspects of the natural environment that affect the ability to access MECS-related meetings, events, training sessions, etc.	In the past 30 days, I was afraid of getting injured because of the physical conditions while accessing MECS-related meetings, events, training sessions, etc.- such as slippery conditions, rocks or thorns, uneven pathways, obstacles, etc.	1 = Never 02 = Sometimes 03 = Often 04 = Always	Health and well-being; Public participation	Household/ Organization
3	Environmental context	Aspects of the natural environment that affect the ability to access MECS repairs and maintenance facilities	In the past 30 days, I was afraid of getting injured because of the physical conditions while accessing MECS repairs and maintenance facilities - such as slippery conditions, rocks or thorns, uneven pathways, obstacles, etc.	1 = Never 02 = Sometimes 03 = Often 04 = Always	Health and well being	Household/ Organization
4	Environmental context	Climatic and seasonal factors that affect the ability to access cooking fuel/MECS and resources	On a typical day in the DRY season, how long does it take to reach a nearby location (shop, market, etc.) to get cooking fuel or any other MECS fuel/service/product?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours	Time and labour	Household/ Organization

5	Environmental context	Climatic and seasonal factors that affect the ability to access cooking fuel/MECS and resources	On a typical day in the WET season, how long does it take to reach a nearby location (shop, market, etc.) to get cooking fuel or any other MECS fuel/service/product?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours	Time and labour	Household/ Organization
6	Environmental context	Climatic and seasonal factors that affect the ability to access MECS repairs and maintenance facilities	On a typical day in the DRY season, how long does it take to reach a nearby repairs and maintenance facility?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours	Time and labour	Household/ Organization
7	Environmental context	Climatic and seasonal factors that affect the ability to access MECS repairs and maintenance facilities	On a typical day in the WET season, how long does it take to reach a nearby repairs and maintenance facility?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours	Time and labour	Household/ Organization
8	Environmental context	Climatic and seasonal factors that affect the ability to access MECS-related meetings, events, training sessions, etc.	On a typical day in the DRY season, how long does it take to go to a MECS-related meetings, events, training session, etc.?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours	Time and labour	Household/ Organization
9	Environmental context	Climatic and seasonal factors that affect the ability to access MECS-related meetings, events, training sessions, etc.	On a typical day in the WET season, how long does it take to go to a MECS-related meetings, events, training session, etc.?	Less than 10 minutes 10 - 30 minutes 30 minutes - 1 hour 1 - 2 hours More than 2 hours	Time and labour	Household/ Organization

10	Environmental context	Climatic and seasonal factors that affect the ability to access MECS and resources, MECS repairs and maintenance facilities, and MECS-related meetings, events, training sessions, etc.	Are there any changes in roles and responsibilities in the household as a result of the seasonal migration, permanent migration or displacement of some household members?	Yes No	Time and labour	Household/ Organization
11	Environmental context	Climatic and seasonal factors that affect the ability to access MECS and resources, MECS repairs and maintenance facilities, and MECS-related meetings, events, training sessions, etc.	If yes, please explain these changes (age, sex, position in household; traditional role; change in role)		Time and labour	Household/ Organization
12	Environmental context	Physical accessibility of MECS and resources	Is it physically challenging to access MECS and resources?	01 = Yes 02 = No		Household/ Organization
13	Environmental context	Physical accessibility of MECS and resources	If yes, please explain			Household/ Organization
14	Environmental context	Physical accessibility of MECS repairs and maintenance facilities	Is it physically challenging to access MECS repairs and maintenance facilities?	01 = Yes 02 = No		Household/ Organization
15	Environmental context	Physical accessibility of MECS repairs and maintenance facilities	If yes, please explain			Household/ Organization

16	Environmental context	Physical accessibility of MECS-related meetings, events, training sessions, etc.	Is it physically challenging to access MECS-related meetings, events, training sessions, etc.?	01 = Yes 02 = No	Public participation	Household/ Organization
17	Environmental context	Physical accessibility of MECS-related meetings, events, training sessions, etc.	If yes, please explain		Public participation	Household/ Organization