Gender Assessment

FP164: Green Growth Equity Fund

India | FMO | B.28/02

24 March 2021

GREEN CLIMATE FUND

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Acronyms and Abbreviations

Name	Description
ADB	Asian Development Bank
BEST	Brihanmumbai Electric Supply & Transport
CAGR	Compound Annual Growth Rate
CEEW	Council on Energy, Environment and Water
CHP	Combined Heat and Power
DFID	Department for International Development
DTC	Delhi Transport Corporation
ERM	Environmental Resources Management
ESCO	Energy Services Company
EUS	Employment-Unemployment Survey
FLFP	Female Labour Force Participation
FP	Funding Proposal
GAP	Gender Action Plan
GCF	Green Climate Fund
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GGEF	Green Growth Equity Fund
GoI	Government of India
GW	Giga Watt
IEA	International Energy Agency
MaaS	Mobility as a Service
NIIF	National Investment and Infrastructure Fund
NSS	National Sample Survey
OEM	Original Equipment Manufacturers
PSV	Public Service Vehicle
RE	Renewable Energy
VFD	Variable Frequency Drives
WRI	World Resources Institute

1. INTRODUCTION

Eversource Capital (hereafter referred to as “Eversource”), is the Investment Manager and envisioned Executive Entity for Equity Investment in Green Growth Equity Fund (“GGEF” or “Fund”) with a focus to decarbonize the India Economy. The target sectors for the Fund’s investments are E-mobility, Resource Efficiency, Energy Services and Renewable Energy and related services. These sectors correspond to following GCF result areas: (M1) Energy access and power generation, (M2) Low-emission transport, (M3) Buildings, cities, industries and appliances and (A1) Health and well-being, and food and water security

ERM India Private Limited (ERM) has been appointed by Eversource for conducting a Gender Assessment Study and development of a Fund level Gender Action Plan. The Gender Assessment Study and Gender Action Plan for the Fund form part of Annex 8 of the Funding Proposal Package.

1.1 Brief information on the Programme

Eversource is the fund manager of the Green Growth Equity Fund (GGEF or the Fund), established with anchor investment from India’s National Investment and Infrastructure Fund (NIIF) and the Department for International Development (DFID), government of UK. The Fund is based in Mumbai (India) and invests in scalable operating companies and platforms with high climate impact and innovation potential.

This is the Programme level Gender Assessment, providing a macro level assessment of gender baseline conditions in India and in sectors targeted for investment by the Fund. The document also includes the Gender Action Plan, which has been developed as a result of this country-level Gender Assessment. The Gender Action Plan (GAP) details specific minimum actions to be implemented on a Fund level and at a Portfolio Company level by the Fund Manager during the programme implementation period. It is noteworthy, that central component of this programme level GAP is to understand and address the gender-based vulnerabilities and risks at a project level, therefore investment due-diligence process of the Fund will be updated to involve an in-depth assessment of the potential impact of project intervention on gender issues. The findings of the project level gender assessment shall provide critical inputs to ensure gender inclusive design in planning for infrastructure projects-so to make sure that infrastructure works for everyone including women and disadvantaged groups. It may be noted that Stakeholder Consultations and Stakeholder Engagement Plan will be performed at individual portfolio level under guidance and supervision from GGEF.

1.2 Objectives and Scope of Work

The objective of the assignment is to undertake Gender Assessments and formulate a Gender Action Plan for the Fund (GGEF), in light of its targeted sectors. The assessment has been conducted based on secondary literature review and consultations with the Eversource team, and covers the following activities:

- Assessment of general social baseline conditions in India as well as focussed interventions that are in practice for the focussed sectors, from a gender perspective;
- Review of the current portfolio of GGEF and the current coverage or inclusion of gender related aspects, at the time of making the investment and as part of ongoing monitoring and reporting;
- Formulation of a Gender Action Plan for GGEF containing recommended strategies and actions, supported by Key Performance Indicators, Monitoring Indicators, Timelines, etc.

1.3 Applicable Reference Framework

The reference framework for the assignment is as presented below.

- Applicable national legislation and regulations pertaining to social and gender aspects;
- GCF Manual on Mainstreaming Gender in Green Climate Fund Projects[1]; and
- GCF Updated Gender Policy and Gender Action Plan 2020 – 2023; and
- GCF Gender Toolkit and Guidance Note (Form 09).

The coverage of the GCF's Gender Policy and Action Plan requirements are presented in *Appendix A*.

1.4 Methodology

The Gender Action Plan details activities to provide guidance to GGEF to integrate gender concerns while evaluating potential investments. Further, it identifies key strategies for promoting gender equality in investments at the level of the portfolio company and/or projects, through capacity building and institutional development, facilitating analysis of gender linked issues and women's and men's participation, and monitoring and reporting on gender outcomes, in line with GCF's Gender Policy and Proposal Toolkit, 2017.

In order to achieve the above mentioned scope, the following methodology has been adopted.

1.4.1 Inception Call

ERM organised an Inception call on 31st July 2020, with the Client to understand the current investment context, get a general understanding of the working of the Fund and current investments. ERM also enquired whether the Fund or the investment companies had an ESMS, a Gender Policy or any other ongoing/proposed interventions undertaken by the Fund that may particular focus on addressing gender related aspects.

ERM has included the information provided by GGEF in this assessment.

1.4.2 Detailed Gender Assessment

The assessment has been carried out in two stages and specifically addresses gender related aspects for the Fund:

- **Stage I:** A Gender Analysis and Assessment of the sectors discussed in ***Section* 1.1** has been undertaken, aligned with the GCF Guidance Note (Form 09) and the overall reference framework (See **section 1.3**), to highlight gaps, concerns, opportunities and good practises, where available;
- **Stage II:** A Fund-level Gender Action Plan has been developed, based on the above analysis and assessment, for discussion in the proposed workshop with the client. The documents will be finalised after incorporating feedback and inputs from the GGEF Team. .

1.4.2.1 Gender Analysis/Assessment guided by GCF Guidance Note

- The Gender Assessment has been carried at the Fund level, for the sectors that GGEF invests in. An assessment of the nationwide gender related baseline scenario and associated impacts and risks, opportunities and trends in these sectors were undertaken using secondary data provided by GGEF and information available in the public domain.

[1] Published in 2017

Key steps followed for the assessment:

- Profiling the social and development status of women and men (education, literacy, work force participation, unemployment, role in formal/informal economy, division of labour, access to resources and opportunity, decision making roles and capacity, as relevant) based on secondary data at the national level;
- An assessment of the legal status, beliefs, perceptions, prevalent gender stereotypes, as relevant for the key sectors of investment;
- An assessment of relevant issues like gender-gap, inequality, gender-specific vulnerabilities (with respect to climate change adaptation, and social, socio-economic, technical capacity, and resource access etc.) has been undertaken based on relevant secondary literature and published research.
- Impacts associated with specific sectors targeted by GGEF have also been assessed in terms of gendered division of work and its impact of women and men, health & safety issues, gender discrimination in access to energy and employment opportunities, demographic-change, labour influx, loss of common property resources, and their effects on women and men, etc.;
- Gender lensing for the fund level investment and activities has been carried out through review of gender focused, or other relevant policies of the Fund. This exercise was done to help identify gaps and providing recommendation including but not limited to update/development of a policy, capacity building of relevant staff and on effective ways to raise awareness amongst different stakeholders (contractors, portfolio companies etc.) for improved outcomes;
- Given that the assessment of sectors found that women were likely to be disproportionately (negatively) affected, or entirely kept out of hiring and decision making, the assessment also focussed on women's voice and agency, their roles in decision making in areas relevant to the Fund and its target sectors.

1.4.3 Formulation of the Fund-level Gender Action Plan

The Gender Action Plan has been formulated to include strategies and action items identified for Eversource (for GGEF) and for their portfolio companies. The action plan includes key indicators and timelines, for effective monitoring of outcomes.

1.4.3.1 Workshop on Gender with GGEF Team

Discussions on the draft Gender Assessment and Action Plan were carried out over two sessions with the client team. The first to discuss the Gender Assessment findings and the overall assessment at the sector level.

The second interaction was conducted as an online workshop, organised on 14th September 2020. . The workshop covered the following aspects:

- Feedback and inputs provided by GGEF on the draft document;
- Challenges (in the form of lack of gender disaggregated data in the relevant sectors in India) and enhancement opportunities from a Gender perspective for the Fund;
- Actions proposed in the GAP, along with indicators, targets, time lines and responsibilities. These have been finalised based on discussions in the workshop and comments received from the client.

The details of the Workshop are summarised in ***Appendix B***.

2. GENDER CONTEXT IN INDIA

The World Economic Forum's 2018 Global Gender Gap report, ranked India 108 out of the 149 countries evaluated for Gender Gap Index[2]. Low scores for political empowerment and economic participation and opportunity for women are the two key reasons for this low rank. According to UN India Business Forum, more than 50percent of the work done by women in India is unpaid, and almost all of it is in the informal sector[3]. Many Indian women are also excluded from the formal financial system. Nearly half of India's women do not have banking access or savings accounts and 60percent have no valuable assets.

A gender assessment at the country level on key socioeconomic aspects indicates that women disproportionately bear the burden of unpaid work, lower literacy and (employable) skill levels, unequal employment opportunities, lower pay and several entry and enhancement barriers across several key industry sectors. While the government of India is recognizing these issues and has introduced several legal provisions and schemes to increase women's participation in the labour force (see section 2.2 for details), there is still much to be done to promote the gender equality in India. It is noteworthy, that the GGEF Gender Policy to be adopted by the Fund Manager will require GGEF's portfolio companies comply with local legislation and applicable schemes, while gender gap assessment performed by the Fund Manager during project appraisal stage and/or during consequent post-investment monitoring stage should reveal any non-compliance on a project level.

2.1 Socio-cultural and Socio-economic indicators

It is useful to understand the larger gender context in India, to identify the sectors and thematic areas that have differential risks and impacts on women and men. The reasons for these differences are also key in order to plan future interventions focussed on improved outcomes. The broad baseline presented in this section covers the basic indicators that play a role in defining the current growth and development scenario across urban and rural areas in India.

2.1.1 Demographic Profile

In India, as per the last Census 2011, the total population was 1.21 billion with a decadal population growth rate of 17.7%. In 2011, only about 31percent of the Indian population lived in urban areas; while the rest lived in rural areas.

The Sex Ratio (number of females per 1000 males) in the country as per Census 2011 was 943 and had improved from 933 in 2001. In rural areas the sex ratio has increased from 946 females per 1000 males to 949 females per 1000 males and the corresponding increase in urban areas has been of 29 points from 900 to 929 females per 1000 males. The gender balance in the country is skewed towards males as an outcome of long prevailing socio-cultural norms in the country. In the past decades, people used medical advancements to opt for sex-selective pregnancies (preferring males), which, through now illegal, greatly contributed to the skewed statistics and continues to affect the sex-ratio. Another reason for the greater difference in urban areas has been attributed to the trend of migration of males in search of employment from villages to nearby towns and cities; while their families continue to stay in their native villages[4].

The share of youth in the total population has been continuously increasing from 30.6percent in 1971 to 34.8percent in 2011[5], though may now see a stabilisation and decline as the fertility rate drops.

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[2] http://www3.weforum.org/docs/WEF_GGGR_2018.pdf

[3] http://in.one.un.org/unibf/gender-equality/

[4] "A new Cohort-based Migration Metric3(CMM)—shows that annually inter-state labour mobility averaged 5-6 million people between 2001 and 2011, yielding an inter-state migrant population of about 60 million and an inter-district migration as high as 80 million"
Source: India on the move and churning new evidence. Chapter 12, Economic Survey 2016-17, Government of India

[5] http://mospi.nic.in/sites/default/files/publication_reports/Youth_in_India-2017.pdf

2.1.2 Literacy and Education

According to the Periodic Labour Force Survey and National Sample Survey Office (NSSO) data India's adult literacy rate[6] stands at 73.2 %, in 2017-18. In the absence of updated Census data (the latest available Census data is nearly 10 years old), the assessment here relies on NSSO and other sources. About three decades ago, the adult male literacy rate in India was almost twice that for adult females. While this gap has narrowed substantially over the years due to several reasons, which include, the government's schemes on free primary education, the mid-day meal programme, poverty reduction due to economic improvements, in turn leading to parents sending children to school, instead of joining the labour force. However, the adult male literacy rate still surpassed the adult female literacy rate by 17 percentage points[7].

There are various studies conducted on the high rates of illiteracy among Indian women[8] [9]and, despite targeted focus of the government to address the gender gap in literacy attainment there is still some way to go. This persistent gap is attributable to a combination of social, economic and cultural factors, including costs, such as tuition fees, transport and school supplies as well as opportunity costs of forgone child labour, which are privately borne by households, continue to influence this choice. The underinvestment in women's education, results in lower literacy and lower educational attainment, and further, to lower employability for semi-skilled and skilled jobs. Social restrictions on women's mobility may also prevent an educated woman from entering the labour force and supporting the household financially. The educational gender gap, therefore, is not only a reflection of the low economic returns to female education but is also a symptom of the entrenched biases that discourage the aspirations of women and other marginalised groups, even as the benefits of female education are known to lead to a more productive workforce, lower fertility and lower infant mortality rates.

The table below shows the gap between male and female literacy from the year 1987-88 to 2017-18.

Table 2.1 Trends in male and female literacy (1987-88 to 2017-18)

	1987-88	1993-94	1999-00	2007-08	2014-15	2017-18
Male literacy %	60.5	65.5	69.2	76.6	80.3	81.5
Female literacy %	31.7	37.9	43.8	54.9	61.8	64.6
Gap %	28.8	27.6	25.4	21.7	18.5	16.9

Source: National Sample Survey, 2017-18

To put these numbers in perspective, the gender-gap in literacy in India is more than twice the 2016 global average and is also higher than the 2016 average for lower-middle-income countries[10]. There are currently 186 million females in India who cannot read and write a simple sentence in any language[11]. These numbers are a reminder that India is still a long way from meeting Goal 4 of the UN SDGs (Sustainable Development Goals) of ensuring "inclusive and equitable quality education" and "lifelong learning opportunities for all" by 2030[12].

[6] The adult literacy rate, as defined by UNESCO, is the percentage of the population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life.

[7] India Data Labs @ Observer Research Foundation, National Sample Survey Organisation, Periodic Labour Force Survey (PLFS), July, 2017- June, 2018.

[888] Elizabeth M. King and M. Anne Hill, Women's Education in Developing Countries: Barriers, Benefits, and Policies (Baltimore: The Johns Hopkins University Press, 1993), 1-2.

[9] Lori McDougall, "Gender Gap in Literacy in Uttar Pradesh: Questions for Decentralised Educational Planning", Economic and Political Weekly 35, no.19 (May, 2000): 1649-1658.

[10] "World Bank Open Data", World Bank, accessed 12 August 2020

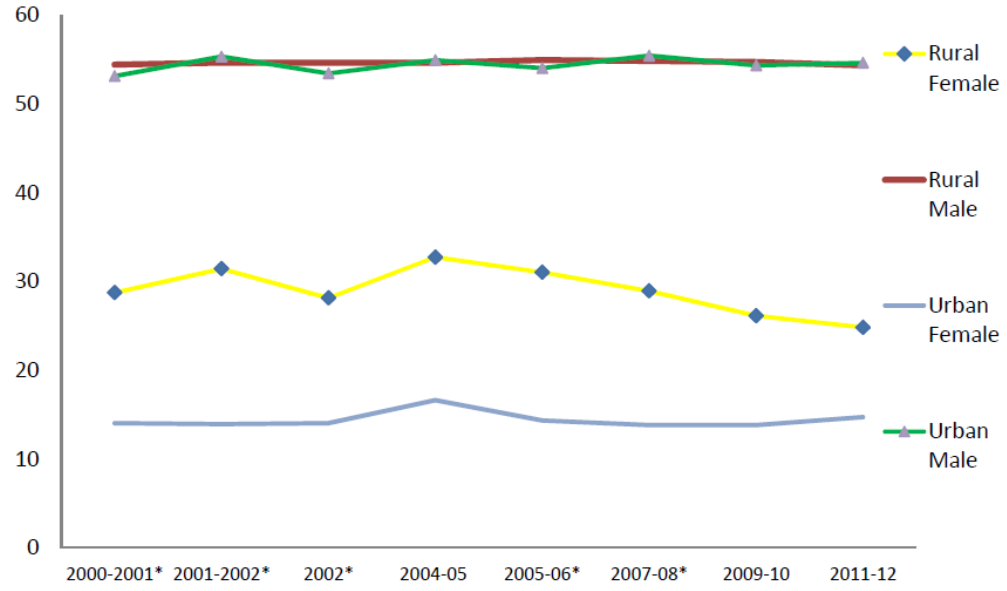
[11] India Data Labs @ Observer Research Foundation, National Sample Survey Organisation, Periodic Labour Force Survey (PLFS), July, 2017- June, 2018.

[12] The Sustainable Development Goals Report 2019 (New York: United Nations, 2019), 30.

2.1.3 Work Participation

As per Census 2011, the Labour Force Participation Rate at the national level was 25.5percent for females and 53.3percent for males. While there is no rural–urban gap for males (approx. 53percent in both cases), there is a considerable rural-urban gap for females (rural -30%, urban- 15.4%). The figure below depicts the trends in the labour force participation of rural and urban populations over the years.

Figure 2.1 Trends in workforce participation as per NSS



Source: National Sample Survey Office (NSSO)

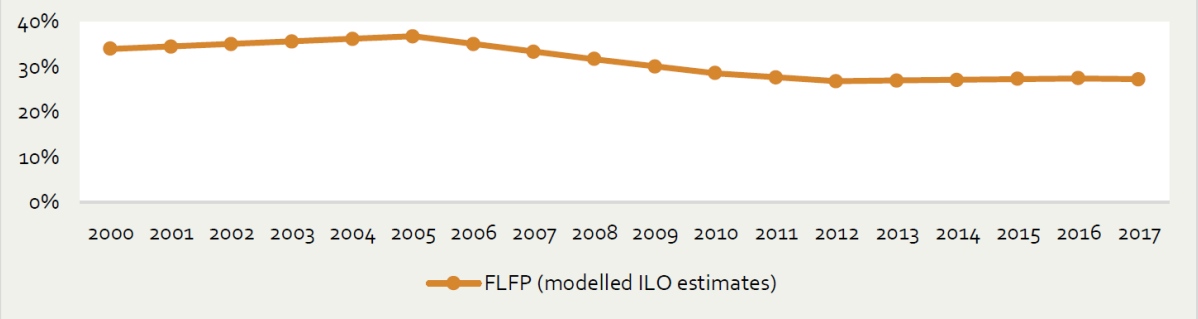
The average rate of Female Labour Force Participation (FLFP) in India from 1990 and 2019 was 27.6percent with this being lowest, at 20.5percent in 2019 and of the highest, at 31.8percent in 2005, while the world average in 2019 based on 182 countries is 51.9%[13]. In over two decades preceding 2013, FLFP in India fell from nearly 34.8percent to about 25%, according to a World Bank report published in April 2017. Despite the fact that increasing number of females are pursuing higher education, India's women keep dropping out of the workforce, contrary to global trends. Although the share of illiterates among the female population has decreased, and the proportion of women with higher education, especially in urban areas, has increased substantially the propensity to participate in the workforce has decreased.

The FLFP in India has decreased from 2005, as depicted in ***Figure 2.1*** below. Commentary on the subject suggests that for rural women, this trend is primarily due to increasing inclination and awareness towards education and thus non availability for employment (at least in the younger age cohort). There are a host of reasons for the decrease in urban FLFP. Some or several factors to explain this, are; increase in household income and financial status leading to decreased need to seek paid employment by women, non-availability of suitable jobs, higher gender pay gaps, non-availability of support at home for child care as the trend for smaller nuclear families also increases, responsibility for care of elderly or sick family members, safety concerns and cultural norms relating to mobility, etc. There are recently updated regulations like Maternity Benefit (Amendment) Act, 2017 which provisions for higher paid leave for women and other infrastructure provisions (that require capex and maintenance expenditure), legal and policy level requirements, etc., which may have affected the hiring decisions of the companies that may have opted-out of employing women due to

[13] https://www.theglobaleconomy.com/India/Female_labor_force_participation/#:~:text=India%3A%20Female%20labor%20force%20participation%20rate&text=The%20average%20value%20for%20India,182%20countries%20is%2051.98%20percent.

added cost liabilities of the employer. A 2018 study by on "Women's Empowerment and the IMF"[14] suggests that closing India's gender gap in labour-force participation would generate an increase in the country's Gross Domestic Product (GDP) as well.

Figure 2.2 Female Labour Force Participation trend in India



Source: ILOSTAT database, 2017 ILO Labour Force Estimates

Female workers remain concentrated in a few industries such as textiles and garments, tobacco, education, health, and domestic services[15]. As per NSS-EUS data of 2015, women constituted just 22percent of manufacturing, 16percent of service sector workers and an even lower 11percent of the workforce in the rooftop solar sector, as per 2018 IEA study. The gender disaggregated figures for renewable energy, waste and other targeted sectors for this assessment are not available, which highlights the lack of gender disaggregated data collection. It may be argued that since the gaps are not measured and monitored regularly in any standardized manner, there have been limited or no planned interventions directed at addressing these gaps. Women workers in India fall in the more vulnerable groups of working population in the labour market as they constitute a very high proportion of the low skilled informal workers, and are engaged in low-productivity and low paying work. Owing to this, women earn very low wages, mostly piece rates in highly insecure jobs.

While lower FLFP trends are noted for India and this may also reflect in the target sectors of the Fund, the renewable energy (Wind, Solar, Hydro), urban e-mobility, waste management and energy efficiency sectors, have the opportunity to adopt forward looking policies to make these sectors more conducive and attractive for women's employment.

The recent trends in India's FLFP are increasingly seen as a challenge that requires policy intervention to ensure that these changes do not result in deterioration in women's well-being and already low empowerment. While the justification for a policy focus on FLFP is clear, the fact that observed FLFP rates reflect both supply and demand factors make it both challenging and necessary to adopt an appropriate policy response.

2.1.4 Employment and income

In rural areas, more than 80 percent of the women are employed in agricultural activities followed by manufacturing, construction and services sector. About 60percent of all agricultural operations are handled exclusively by women, but with hourly wage rates varying from 50 to 70percent of male wage rates[16]. The gender wage gap varies widely as women earn between 35 and 85percent of men's earnings, depending on the type of work and the level of education of the worker. Additionally, considerable gender pay gap exists in both rural and urban areas and the gap is higher in urban areas. As per NSS 2011-12, the average wage/ salary received per day by regular wage/ Salaried Employees of age 15-59 years for females (rural: INR 201.56, urban: INR 366.15) is lower than that of

[14] https://www.imf.org/external/pubs/ft/gender/IMFWomensEmpowerment.pdf
[15] http://www.indiaenvironmentportal.org.in/files/file/State_of_Working_India_2018.pdf [Last accessed: 12th August 2020]
[16] https://www.indiastat.com/SOCIO_PDF/110/fulltext.pdf

males (rural: INR 322.28, urban: INR 469.87) in both rural and urban areas and the gap is more in rural areas. Irrespective of education level and residence (rural or urban), the average per day wage/salary earned by a female is less than that by a male.

2.1.5 Women's representation/participation in the political systems

The representation of women in Parliament and in decision making roles in public sphere is considered one of the key indicators of empowerment. As per the report 'Women in Politics 2017 (IPU & UN)' Lok Sabha had 64 (11.8 percent of 542 MPs) and Rajya Sabha had 27 (11 percent of 245 MPs) women MPs[17]. Out of 4118 MLAs in India in 2016, across the country, only 9 percent were women. Among the state assemblies, the highest percentage of women MLAs were from Bihar, Haryana and Rajasthan with 14 per cent followed by Madhya Pradesh and West Bengal with 13 per cent and Punjab with 12 per cent. Almost half the population in India is female but their participation in political leadership has been low given that men have traditionally occupied leadership roles and this carried through to politics too.

The Economic Survey of India 2018, stated that factors such as domestic responsibilities, prevailing cultural attitudes regarding roles of women in society and lack of support from family were among main reasons that prevented women from entering politics.

2.2 Government Schemes targeted at Women's development

There are various Gender focused legal regulations in India, that aim to address the vulnerabilities and cultural biases associated with gender, through provision of certain measures that support a safe and equal professional platform for women. These regulations are presented below.

- **Equal Remuneration Act, 1973** provides for payment of equal remuneration to men and women workers for the same work of similar nature without any discrimination. In order to ensure social security to the workers including women in the unorganised sector, the Government has enacted the Unorganised Workers' Social Security Act 2008.
- **The Maternity Benefit Act, 1961** and **The Maternity Benefit** (**Amendment**) **Act**, **2017** regulate employment of women in certain establishments for a certain period (26 weeks) before and after childbirth and provides for maternity and other benefits.
- **The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act (POSH), 2013** has been enacted, which covers all women, irrespective of their age or employment status and protect them against sexual harassment at all workplaces both in public and private sector, whether organised or unorganised.

The Government of India has been launching programmes like Beti Padhao, Beti Bachao campaign (launched in 2015) for improving the Gender Parity Index (GPI)[18] by promoting survival, protection and education of girl child. It aims to address the issue of declining Child Sex Ratio through a mass campaign targeted at changing social mind set and creating awareness about the criticality of the issue. Furthermore, Mahila E-Haat has been launched by the Government in 2016 for promoting women entrepreneurs, with the objective to provide an e-marketing platform by leveraging technology for showcasing product made/manufactured/sold by women entrepreneurs/SHGs/NGOs.

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), 2005[19] is one of the important schemes launched in India which is a rural social safety net guaranteeing at least 100 days of employment per year at minimum wage. It stipulates a minimum 33 percent participation by

[17] https://mofapp.nic.in/economicsurvey/economicsurvey/pdf/167-185_Chapter_10_Economic_Survey_2017-18.pdf

[18] Gender Parity Index (GPI) in education is a valuable indicator which reflects the discrimination against girls in access to educational opportunities.

[19] Mahatma Gandhi Employment Guarantee Act 2005, is an Indian labour law and social security measure that aims to guarantee the 'right to work'

women. Trends from 2013-14 to 2017- 18 show that participation by women in the total person days generated has been more than 50 percent. This increased participation brings out the opportunity gap for women's paid employment, which remains an unmet demand.

India has also ratified various international conventions and human rights instruments committing to secure equal rights of women. Key among them is the ratification of the Convention on Elimination of All Forms of Discrimination against Women (CEDAW) in 1993.

Despite the above provisions, weak implementation, oversight and monitoring mechanisms of the government have been unable to address the poor outcomes on-ground. Given these circumstances, participation by the private sector with greater commitments on gender mainstreaming are essential to address this disparity.

2.3 Gender Mainstreaming and Corporate Governance

The inclusion of gender sensitive planning and gender mainstreaming at corporate organisations is driven by one or more of three key impetuses; firstly, national legal and policy level compliance, secondly, investor requirements (some of which are Development Finance Institutions (DFIs) or are entities funded by DFIs) and thirdly, the internal initiatives and objectives of the companies' leadership.

There are various regulatory provisions introduced to manage governance of gender aspects in privately owned companies but they are superficially integrated, due to limited monitoring by the government. In order to promote gender diversity at the senior leadership in Indian companies, the Companies Act of 2013 had made it mandatory for publicly listed companies as well as those with a turnover of over ₹300 crore (₹3 billion) to appoint at least one woman director. This requirement was revised by the Securities Exchange Board of India (SEBI) in 2017 to have at least one independent woman director[20].

Corporate organizations develop various means to fulfil minimum regulatory requirements as there is limited oversight and scrutiny by the regulators. This is also reflected in the Credit Suisse Gender 3000 report published in 2019, which mentions that, Indian boardrooms have just above one woman for every six men, while the global number is about one for every four men on companies' boards.

The employers in India presently do not undertake gender focussed assessments or initiatives at the institutional level, if there are no regulatory or other compliance-driven requirements to do so. This explains the absence of gender mainstreaming strategies, actions and outcomes. Furthermore, there is a lack of gender inclusive design in planning for infrastructure projects. This is mainly due to socio-cultural factors discussed earlier as well as limited awareness that gender-equitable participation requires that both women and men are not only project beneficiaries, but also active agents in project design, planning, implementation, and monitoring and evaluation. Stakeholder consultations in India is often limited on engagement of woman and disadvantaged groups-which may result in non-inclusive project design. For example, the rural water project priorities are often different for men and women. Men may prioritize issues related to crop production, such as water pressure, or limited water supply for irrigation, while women may be more concerned with issues such as time savings and reducing work burdens, and may therefore assign higher priority to the time of day at which water is available, or the location of water standpoints, to facilitate both productive and domestic tasks.

However, investor-driven gender assessments and requirements are being increasingly implemented in the Indian corporate sector, both at the level of projects as well as in corporate hiring with the aim of improving the prevailing gender balance.

At the core of the Green Growth Equity Fund is to ensure the gender inclusive operations and planning for its green infrastructure projects. The GGGEF Gender Policy to be developed as part of the

[20] https://www.livemint.com/opinion/online-views/opinion-gender-diversity-aids-corporate-governance-11570985393382.html

programme level Gender Action Plan shall signal the need to implement gender mainstreamed approach. The portfolio level gender action plans to be developed on the basis of the individual project level gender gap assessment coupled with regular monitoring and evaluation of gender impacts on project level will ensure that the enforceability of GGEF Gender Policy.

3. GENDER LENSING OF TARGETTED SECTORS AND GGEF

This section presents a gender-lensed profile of the Renewable Energy, Waste and Waste Water and E-mobility sectors that are target sectors for GGEF. Energy efficiency is also an area of focus for GGEF, and is an outcome of various interventions in the above mentioned, or other sectors.

The analysis also presents the challenges and opportunities for enhancement.

Additionally, this section covers the mechanisms in place at Eversource (Investment Manager of GGEF) and its portfolio companies to ensure inclusivity in their operations.

3.1 Sectors targeted by GGEF in the Indian Context

This section builds on the sectoral context provided by GGEF as part of the proposal and presents the challenges and opportunities in each sector.

3.1.1 Renewable Energy Generation – Utility, Commercial and Industrial Scale

3.1.1.1 Gender-based assessment of challenges in the sector

International Energy Agency (IEA) and the Council on Energy, Environment and Water (CEEW) jointly undertook a study in 2019, commissioned by Natural Resources Canada, to explore the potential employment impact on women of enhanced deployment of rooftop solar technology in India. Women account for an estimated 11percent of the workforce in the rooftop solar sector in India and similar, gender disaggregated data for other Renewable Energy categories is not available for comparison.

The IEA- CEEW study indicates that the share of female employees in office-based positions (such as design & pre-construction phase) and corporate segment is 18percent and 34 percent, respectively[21]. In the area of construction and commissioning (where rural women may be engaged and there are lower hiring thresholds in terms of education and skills) women constitute only 3 percent, and, a mere 1percent in operations and maintenance. Key reasons cited in this study include safety concerns and general perceptions that the onsite workforce is male-dominated and therefore, potentially unsafe for women. Another possible cause for this trend may be that most solar or renewable energy projects are located in rural and remote areas, where both demand and supply of skilled female workforce would be constrained.

Further, companies too, are often of the opinion that jobs requiring significant travel and time away from home may be challenging for women, who are traditionally seen as the primary caregivers for children and the elderly in the families, and are therefore, not considered for employment at such locations.

In general, renewable energy projects tend to be located in remote areas, sometimes away from habitations and unconnected or poorly connected through public transport explaining the preponderance of the entirely male workforce. Even as these factors are currently perceived as barriers (in terms of access and safety) for young and skilled female workers, they must be used to target interventions that ease these barriers.

Gender ratios also vary across career levels. At the top of the corporate hierarchy, of the companies surveyed by IEA and CEEW in their study found that only one-third, have a female board member. None has more than one woman. Women in senior and mid-level management, in most cases lead a team or department in the support functions in divisions such as human resources, accounting and finance, and institutional relations. It is rare for women to head engineering or sales teams. These data trends are also stemming from the fact that there is a lack of female workers at the entry level in

[21] https://www.iea.org/reports/women-working-in-the-rooftop-solar-sector

technical and sales teams; it is some of these workers who would eventually progress to leadership roles.

The sector assessment is not premised on the assumption that women and men will be equally represented across all categories. However, the absence of gender disaggregated data (for comparison and analysis) indicates that sharper focus is required to better understand the barriers and preferences across genders, in this sector.

3.1.1.2 Opportunities in the Renewable Energy Sector

The barriers for employment for women can be overcome through certain targeted interventions at various levels. Suggested interventions in the sector, at company-level, are listed below

- Developing targeted policies to facilitate hiring and retention of female workforce at all levels, including at project sites. Some examples of the same can be community mobilization activities in places where solar parks are being developed and the need for a higher workforce is envisaged, support in skills training of females, ensuring ease and safety of transportation, etc.;
- Ensuring that the contract agreements with vendors contain requirements of reporting gender disaggregated data of workforce, setting soft or hard targets for contractors to hire women across various categories, commitments to ensure equal pay for women for the same work as men, other measures; taken to ensure the safety and security of staff, with a functioning grievance management mechanism
- Providing segregated toilet and sanitation facilities for men and women and providing reliable water supply, lock safety and lighting;
- Ensuring that a crèche is established if the women engaged at the project are 50 or more, as per provisions of Maternity Benefit (Amendment) Act, 2017;
- Effectively implementing appropriate policies and reporting systems for the prevention of sexual harassment at the workplace (as per the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

3.1.2 Waste Management in India

3.1.2.1 Gender-based assessment of challenges in the sector

Secondary data on gender differences in this sector, is largely focused on rag pickers or segregators. Rag pickers in urban areas continue to be a subject of concern because of their great vulnerability in terms of health, safety and socioeconomics.

No data is available for the gender disaggregated formal employment trends in the sector on or engagement at senior level (management, admin etc.) or even as skilled and unskilled workers in recycling, processing units or WTE units.

Waste picking and segregating is a labour-intensive task, lacking health facilities, overall safety and legal cover. Unskilled persons, migrants and the poorest of the poor, and quite often women and children, predominantly work as waste collectors and recycling collectors, in formal and informal systems, as they are unable to find any other employment[22]. They work without any job security, regular wages or dignity and are regularly exposed to occupational hazards of cuts, infections, respiratory diseases and tuberculosis apart from poverty, humiliation, harassment, and sexual abuse on the streets. Awareness of various occupational and environmental health hazards among these workers is also low. Child waste pickers are vulnerable, given their poor knowledge and awareness of

[22] http://www.wiego.org/informal_economy_law/waste-pickers-india

these hazards and are often attacked by adult waste pickers who see them as a threat to their livelihoods. Not only do they work long hours for low wages but are also vulnerable to further exploitation, child abuse and traffickers[23]. Despite these conditions, there are limited or no interventions targeted to improve the condition of these workers, working either through formal or informal channels.

Further, while accounting for the recent interventions in waste management, such as waste to energy, waste recycling, and emissions control projects and their supply chains, there are very few waste businesses that are women-owned or operated. According to a study commissioned by Ocean Conservancy in 2019 [24] covering India, Indonesia, the Philippines, and Vietnam, , women are employed in the processing stage, to mostly sort, clean, separate and sift through the recyclable material, which is known to present a number of safety hazards and are paid lower wages, while men are tasked with the more physically intensive activities of loading and unloading,. Both male and female workers often face harrowing occupational hazards and are exposed to toxins in the absence of protective gear themselves and no medical insurance[25]. Such issues are often outcomes of these tasks and workers being excluded from formal systems, or often, being resigned to operate illegally, especially in their use of child labour. These informal systems constitute poor sourcing practices, where lower cost is the parameter for selection of vendors and contractors and consequently, little or no health and safety provisions, and, poor and hazardous working conditions.

Overall, challenges faced by men and women engaged in the waste sector, on rag picking, are hazardous for both though several risks are disproportionately borne by children and women workers, including but not limited to sexual abuse and extensive use of child labour. While preference for men is high for employment within municipal systems, earnings as unskilled workers are similar for women and men. Workers are often paid wages lower than stipulated minimum wages. Some of the common challenges include manual handling of garbage, night soils, increased risk of sexual abuse with no legal protections, lack of medical insurance, unfair practices by traders, and other occupational health hazards such as vulnerability to skin, gastro-intestinal and musculo-skeletal ailments[26].

A key finding is that since these hazardous conditions are for work that is typically out of the formal systems, WTE companies' policies and standards would not apply, even as their functioning would continue to rely on the informal and vulnerable workers.

Gender disaggregated data for other types of work in the waste management sector, employment and hiring practises are not available, but require to be assessed for gaps and disproportionate impacts for women and men.

3.1.2.2 Opportunities for gendered interventions in the Waste sector

Based on the above analysis and trends, potential areas for improvement are discussed below:

- Encourage companies to undertake an assessment of operations of the vendors' and contractors' supply chains in terms of sourcing, human rights, occupational health and safety and working conditions of women and men, use of child labour, etc. as a criteria for selection. Provide minimum performance expectations for their supply chain. Provide the required support in enabling them to make improvements;
- Work with potential investment targets on their backward linkages (along the waste supply chains) through updating contracts with vendors, and requiring them to provide protections and safeguards for worker in the sector (protective gear, footwear, masks, gloves and other sorting

[23] Down in the dumps: Delhi's waste pickers' saga. Amita Bhaduri.2018

[24] Role of Gender in Waste Management, Ocean Conservancy, 2019.

[25] Unpaid and undervalued, how India's waste pickers fight apathy to keep our cities clean. Swetha Dandapani, (2017)..

[26] A 2017 report published in the Journal of Occupational Medicine and Toxicology, titled, Prevalence, predictors and economic burden of morbidities among waste-pickers of Mumbai, India: A cross-sectional study, studied the health hazards of waste workers

devices would assure greater safety and reduce instances of physical harm. Explicitly prohibit use of children below 16 years of age as labour;

- Explore enabling contracts with vendors to, in turn, ensure improvements on health, safety and labour practices and benefits to their workers with regular monitoring, etc., including exploring a system if incentives for improved outcomes;
- Support the provision of emergency health response and health insurance with improved access to health services amongst the waste sector worker community, with focus on women's health, through targeted programmes;
- Explore ways and means for incorporation of women waste pickers in the formal workforce on Waste Management Projects: work with partnerships of Civil Society Organisations, NGOs waste pickers' collectives, and Municipalities to transition informal workers to formal employment with safeguards;
- Plan interventions with informal women workers in the sector on awareness towards risks and management of women's health (focusing on gynaecological conditions stemming from repeated and prolonged exposure to waste), as part of CSR investments, or other social investment initiatives, with regular monitoring and reporting.
- Plan interventions for male workers, disproportionally represented in the loading and unloading category to address health and safety risks, through initiatives similar to the ones mentioned above (these may be executed together to target both men and women).

3.1.3 E- Mobility and Urban Transport

3.1.3.1 Gender based assessment of challenges in the sector

Transportation planning and design are commonly regarded as "gender neutral." It is assumed that transport projects equally benefit both men and women and that there are no significant differences between travel needs and patterns of either gender. Investments are therefore oriented towards hard infrastructure and planning towards benefiting different social groups[27]. On the contrary, how women experience mobility is very different from men. This is rooted in community-driven gender roles with economic, social and livelihood influences in the Indian society where women are invariably responsible for household chores and care takings responsibilities of children and elders, making the mobility needs of women more heterogeneous. While men use transport services largely to commute between home and work, women combine domestic and caregiving tasks with work trips. This phenomenon is referred to as "trip chaining," where trips are short, multimodal and frequent. Trip chaining is especially common among women in low- and middle-income economies. This is borne out in a study conducted in Bhopal by World Resources Institute (WRI) India, which revealed that more than 50percent of the 2000-odd women interviewed undertake chained trips.

As per an ADB report published in 2013, women may turn down better employment opportunities further away from home in favour of lower-paid local opportunities when the public transport system is unreliable, unaffordable or unavailable.

In 2005, 6.85percent of women were employed in the transportation sector in India compared to 19percent of men. In Mumbai, according to a World Bank report, women constituted only 12.5percent of the Brihanmumbai Electric Supply & Transport (BEST) Committee and 1percent its engineers in 2010. When BEST attempted to induct women bus conductors, all of them requested to be shifted to desk jobs due to reasons linked to risks of harassment in public transport, safety and lack of public toilet facilities as a barrier to taking up the job of drivers and conductors.

[27] https://thecityfix.com/blog/why-it-is-key-to-include-gender-equality-in-transport-design-jyot-chadha-vishal-ramprasad/

Women face multiple challenges including accessing vocational training specific to transport sector jobs. Moreover, the upfront investment associated with training programmes may be a barrier for resource-poor women. In the Delhi Transport Corporation (DTC), drivers are required to hold a valid heavy motor vehicle license for at least three years and a public service vehicle (PSV) badge issued by the licensing authority, which is a major entry barrier. Additionally, when women are qualified for the jobs, insidious gendered assumptions regarding their suitability for the job prevent them from breaking into the transport sector (Azad Foundation and University of Western Ontario 2014[28].

Harassment and threats by commuters and colleagues, lack of public toilet facilities are additional barriers. Encouraging women in non-traditional occupations requires institutions to create a conducive environment. Simultaneously, women's presence at different levels in public transport authorities has the potential of mainstreaming gender within the organization by bringing women's issues to the fore in its services and infrastructure.

Under-representation of women in the transport sector leads to a low visibility of women's perspectives, and the differences in transport needs and patterns do not become apparent. Higher participation of women in the planning and design process is therefore increasingly necessary.

The Ministry of Road Transport has mandated all taxis, buses and public transport vehicles, barring three-wheelers to install GPS tracking and Panic buttons mandatorily since 1st April, 2018.

An interesting case study has been presented below where recent efforts of the government in bringing women in the transportation sector have been captured and the trend is increasing.

Box 3.1 Case Study on an all women managed Railway Stations in India

Matunga station in Mumbai became the first railway station in the country to be managed by an all-women staff in 2017. The station comprises of 41 female staff that will be serving a four-year tenure.

Gandhinagar station in Jaipur became the first interstate train station run entirely by women. Women at the station work in a variety of roles, from ticket-sellers and conductors to station masters. Each day, about 7,000 passengers pass through Gandhinagar station, which is located on the Jaipur-Delhi route. After Matunga station in Mumbai, Gandhinagar is now one of several with an all-female staff. The initiative reflects wider efforts by Indian Railways to recruit more women.

The trend of employment of all-women staff run railway stations is increasing and there are currently five such stations in India are located in Matunga in Mumbai, Gandhinagar in Jaipur, Chandragiri in Andhra Pradesh's Chittoor district and Ajni in Nagpur, Maharashtra and Maninagar in Gujarat.

3.1.3.2 Opportunities for intervention in E-mobility sector

As presented above, some focused interventions need to be undertaken by Companies in the sector to become inclusive in their employment and operations planning practices. Some such interventions are suggested below.

- Exploring the uptake of women for training as drivers, technicians for repair and maintenance and ensuring financial or other necessary support to companies/ skilling centres in these programmes;
- Agreeing on contractual provisions with contractors and business partners on engagement of women workforce beyond a certain threshold;

[28] https://www.researchgate.net/profile/Sonal_Shah11/publication/322330719_Women_and_Transport_in_Indian_Cities/links/5b7f9f134585151fd12e7a0d/Women-and-Transport-in-Indian-Cities.pdf?origin=publication_detail

- Installation of enhanced safety features in the design stage in the electric vehicles being planned for public use, like cameras, panic buttons, etc.;
- Encourage companies to focus on ensuring quality of associated infrastructure like safety and security at waiting areas, lighting and seating arrangements, availability of adequate water and sanitation facilities, etc. at waiting areas, for public transport.

3.1.4 Energy Efficiency

According to '*India Energy Policy Review, 2020*[1]', the primary energy demand in India has grown from about 450 million tons of oil equivalent (toe) in 2000 to about 770 million toe in 2012. This is expected to increase to about 1250 to 1500 Report) million toe in 2030. This increase is driven by a number of factors, the most important of which are increasing incomes and economic growth which lead to greater demand for energy for services such as lighting, cooking, space cooling, mobility, industrial production, office automation, etc.[29]

Government of India has undertaken various measures to cater to the growing energy demand, while ensuring minimum growth in carbon dioxide emissions. These efforts include greater use of renewable (such as solar and wind) shifting towards supercritical technologies for coal based power plants[30]. There are specific efforts being made to efficiently use the energy in the demand and supply side as well. Energy efficiency essentially means using lesser amount of energy while producing a given amount of output. This not only means less cost incurred to produce a commodity, but also implies lower emissions of greenhouse gases. India has directed its policies to focus specifically on energy efficiency through implementation of Environmental Conservation Act in 2001 and setting up the Bureau of Energy Efficiency (BEE) and initiating the National Mission for Enhanced Energy Efficiency (NMEEE) in 2008[31].

There are various policy measures for energy efficiency including standards and labelling of equipment and appliances, energy conservation building codes for commercial buildings, and energy consumption norms for energy intensive industries[32].

3.1.4.1 Gender-based assessment of challenges in the sector

There is no data is available for the gender disaggregated formal employment trends in the sector on or engagement at senior level (management, admin etc.) or even as skilled and unskilled workers specifically working in facilities/companies manufacturing energy efficient equipment's (e.g. LED bulbs, water pump sets etc.), construction of green buildings etc.

It is understood that gender related issues in this sector are similar to that faced by women and men in the energy sector, in general[33]. The gender roles-the sociocultural expectations, behaviours, responsibilities and activities that a society constructs, determine women's and men's roles and relationships as energy providers and users, as well as their participation in the energy labour market and in decision-making processes.

Since energy efficiency may be deployed as a strategy to achieve an outcome, it will assume the limitations and opportunities in the sector where it is applied.

3.1.4.2 Opportunities for intervention in Energy Efficiency

The barriers for employment for women can be overcome through certain targeted interventions at various levels. Suggested interventions in the sector, at company-level, are listed below

[29] https://powermin.nic.in/en/content/energy-efficiency

[30] https://beeindia.gov.in/

[31] Annual Report (2018-19), Bureau of Energy Efficiency, Ministry of Power, Govt. of India.

[32] https://powermin.nic.in/en/content/energy-efficiency

[33] Energizing Equality: The importance of integrating gender equality principles in national energy policies and frameworks, IUCN, ENERGIA and USAID, 2017.

- Developing targeted policies to facilitate hiring and retention of female workforce at all levels. Some examples of the same can be community mobilization activities in places where green buildings are being constructed and the need for a workforce is envisaged, support in skill trainings for females, ensuring ease and safety at the construction site as well as of transportation, etc.;
- Ensuring that the contract agreements with vendors contain requirements of reporting gender disaggregated data of workforce, setting soft or hard targets for contractors to train and hire women across various categories, commitments to ensure equal pay for women for the same work as men, other measures; taken to ensure the safety and security of staff, with a functioning grievance management mechanism.

3.2 Overview of Gender Inclusive initiatives at GGEF

Eversource has developed various policies that are targeted at ensuring diversity and inclusion of diversity in the workforce engaged on their payroll.

The relevant policies are as enlisted below.

- “Employee Fair play and Equal opportunities code” - The code establishes Everource’s commitment towards safe and conducive work environment for all its employees. Its emphasis on a ‘gender friendly workplace’ and commitment towards ‘no discrimination based on gender, race, colour, sex, religion, political opinion, national extraction or social origin of individuals’, and sets the tone and expectations.
- “Care and Dignity Policy” to combat discrimination / sexual harassment of men and women in the workplace. The Policy incorporates the provisions of recent legislation of Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (POSH, 2013) and Rules made thereunder. The provisions of this Policy are in addition to the provisions of any other law for the time being in force.
- Additionally, a “Diversity and Inclusion Policy” is also being drafted and will be soon implemented at the fund level. The Policy will act as an official statement of support for the diversity among Eversource employees in terms of their age, ethnicity, gender, gender identity or expression, language differences, nationality or national origin, family or marital status, physical, mental and development abilities, race, religion or belief, sexual orientation, skin colour, social or economic class, education, work and behavioural styles, political affiliation or any other characteristics. The purpose of the policy will be to prevent unfair discrimination and encourage diversity.

The Fund requires its portfolio companies to comply with these policies or draft specific policies on similar lines.

3.3 Conclusion

It is recommended that Eversource determines institutional arrangements to drive the implementation of the Action Plan. Eversource shall plan the next steps required in terms of hiring/ training of existing resources on Gender specific aspects as outlined in the GAP.

It is also recommended that GGEF discuss these aspects with all its potential portfolio companies and other relevant business partners at the time of their initial interactions to understand how best to integrate these requirements as part of contractual agreements, for effective implementation of the Action Plan. Additionally, planning Gender focused workshops and interventions with existing portfolio companies is also a key step towards achieving objectives of Gender Action Plan of GGEF, by ensuring a common understanding and an alignment on the purpose and outcomes.

The data on Gender impacts at the Fund level will be a collation of the reported data from the portfolio companies. Thus, it is important to ensure that the data from portfolio companies is consistent, temporally aligned and comparable, across reporting categories, based on the indicators selected by the Fund across all portfolio companies.

3.3.1 Budgetary Provisions

Eversource shall allocate of appropriate time and resources for the implementation and monitoring of the Gender Action Plan.

3.3.2 Review and Update

The Gender Action Plan prepared is aligned to the current thematic focus and investors' guidelines of Eversource. This shall be reviewed annually to check for alignment with investor expectation, evolving gender context in the country and impact created and measured in the first year of implementation. There may be an addition to the portfolio of Eversource which may require specific interventions to be integrated in GGEF's Gender Acton Plan.

An update to the Action Plan shall be carried out based on identification of requirement as per the annual review.