



ASIAN DEVELOPMENT BANK

Gender Assessment and Gender Action Plan

Annex 8

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1. BACKGROUND.....	4
2. INTRODUCTION TO THE INDIA GREEN FINANCE FACILITY	4
2.1. Background and Rationale	4
3. APPROACH.....	6
3.1. Gender Frameworks, Policies and Guidelines.....	10
3.2. IGFF Methodology	12
3.2.1. Gender Requirements at IGFF and Operational (projects/programs)	12
3.2.2. Roles and Responsibilities.....	13
4. GENDER ASSESSMENT.....	14
4.1. National Laws and Policy Frameworks of India on Gender.....	14
4.2. The role of energy in women's daily lives, health, productivity, and livelihoods	17
4.3. Gendered Disparities in Energy Access in India: Challenges and Opportunities	18
4.3.1. Intersectional and Regional Disparities	18
4.3.2. Opportunities for Transformative Change	19
4.4. Women in the renewable energy workforce in India.....	20
4.5. Gendered dynamics across the IGFF focus areas.	23
4.5.1. Women and powering India's energy transition.....	23
4.5.2. Women and energy access for cleaner living.....	25
4.5.3. Women and resilient energy systems for rural and urban areas.	27
5. GENDER ACTION PLAN	28

ABBREVIATIONS

AE	—	Accredited Entity
ADB	—	Asian Development Bank
ARA	—	Adaptation Results Area
DFI	—	Development Financial Institutions
DRE	—	Decentralized Renewable Energy
E&S	—	Environmental and Social
ESMF	—	Environmental and Social Management Framework
FWP	—	Female Workforce Participation
GESI	—	Gender Equality and Social Inclusion
GAP	—	Gender Action Plan
GA	—	Gender Assessment
GHG	—	Greenhouse gas
GCF	—	Green Climate Fund
IGFF	—	India Green Finance Facility
HDI	—	Human Development Index
IIFCL	—	India Infrastructure Finance Company Limited
IRMF	—	Integrated Results Management Framework
NABARD	—	National Bank for Agriculture and Rural Development
NDCSs	—	Nationally Determined Contributions
REC	—	Rural Electrification Corporation Ltd.
SIDBI	—	Small Industries Development Bank of India

TA _ Technical assistance

1. BACKGROUND

1. This Annex contains the Gender Assessment and Action Plan (GAAP) for the India Green Finance Facility (hereafter referred to as "IGFF" or 'Facility'). Annex 8 outlines the Facility's approach to mainstreaming gender in its operations, the proposed governance, and guiding principles, which are based on the existing policies of both the Green Climate Fund (GCF) and the Asian Development Bank (ADB). The Gender Assessment also briefly examines the role of women (as consumers, employees, and entrepreneurs) in each of the identified thematic pillars as laid out in the Funding Proposal. The facility will accelerate the deployment of key clean energy solutions, including:

- Round-the-clock (RTC) renewable energy with storage to ensure 24/7 clean power supply.
- Decentralized renewable energy for rural applications, improving livelihoods and resilience.
- Electric mobility solutions for rural and peri-urban transport to decarbonize mobility.
- Green hydrogen for industrial applications to transition hard-to-abate sectors.
- Compressed biogas (CBG) for sustainable waste management.

2. This annex also includes the Gender Action Plan (GAP), which outlines specific activities, targets, and Key Performance Indicators (KPIs) for the IGFF along with the two components of Technical Assistance (TA) and Investment Package. The GAP aligns with the facility-level Integrated Results Management Framework (IRMF). As such, indicators and targets listed in the GAP will help the Facility monitor progress against the gender targets in the selected Mitigation and Adaption Results Area of the IRMF.

2. INTRODUCTION TO THE INDIA GREEN FINANCE FACILITY

2.1. Background and Rationale

3. The ADB-GCF India Green Finance Facility (IGFF or 'Facility') is a blended finance facility designed to accelerate India's energy transition through targeted financing to scale up emerging clean energy technologies with a focus on underserved areas in the country. It leverages concessional capital from the GCF, complemented by resources from the ADB, to provide lines of credit and guarantees to participating public DFIs in India to address bankability and financing gaps for these technologies. Additionally, the IGFF will deploy technical assistance to strengthen project pipelines, address market barriers, and build the capacity of DFIs to institutionalize green lending practices within their operations, including the adoption of domestic climate-related financial disclosure frameworks while advancing gender-responsive financing practices to promote women's participation in the clean energy value chain. The Facility's objectives are:

- i. Powering India' Energy Transition including RTC renewable energy with storage and Green Hydrogen/Green Ammonia production

- ii. Modernising Energy Access for Cleaner Living including Electric mobility solutions for rural and peri-urban transport, and CBG for sustainable waste management
 - iii. Resilient and reliable energy systems for rural and urban communities including Decentralized Renewable energy (DRE) to power livelihood applications e.g. off-grid solar power water pumps and cold storages
4. One of the key design principles of IGFF is the focus on gender-responsive financing. IGFF strengthens DFI capacities to integrate practices into their operations that support women's participation, supporting sex-disaggregated data systems, targeted financing for women-led projects, and capacity-building programs. These efforts aim to enable women's active participation across the clean energy value chain, fostering greater inclusion and equity within the sector. The program will increase gender responsive financing by 10% from the baseline for relevant clean energy solutions. The relevant clean energy solutions are DRE and e-mobility. This assessment aims to ensure that the Facility's design, implementation, and outcomes are gender-responsive and aligned with the GCF Gender Policy and Action Plan¹ and ADB's gender equality policies and procedures. It aims to address gender gaps, empower women in the financial and renewable energy sectors, and enhance equitable participation in climate resilience efforts.
5. The Facility is structured in two components - Component 1 is the Financing for DFIs to scale up emerging clean energy technologies, Component 2 includes technical support for insitutionalising green lending practices and strengthening DFI capacities. Component 2 will strengthen capacity in DFIs to adopt inclusive gender-responsive green lending principles. This is an integral component to achieving mitigation and adaptation co-benefits to support the green and sustainable transition of India's DFIs, ensuring their alignment with Paris Agreement goals, climate-related financial disclosure frameworks and other sustainability targets.
6. By providing this integrated package of TA and low-cost financing, the Facility supports the government of India in its energy transition efforts, reducing carbon intensity and decoupling economic growth from (GHG) emissions.
7. While the IGFF is primarily focused on climate goals, it also promises inclusive and sustainable development benefits. By placing an emphasis on ensuring that women, marginalized communities, and climate-vulnerable regions directly benefit from its initiatives, it has the potential to deliver on improved gender equality and social inclusion. These benefits can be realized through increased participation of women in the energy workforce, improved access to skills development for women, and increased access to finance for women-led green enterprises.

¹ <https://www.greenclimate.fund/document/gcf-b24-15>

3. APPROACH

8. The success of gender mainstreaming in the IGFF hinges on the active involvement of the DFIs. ADB's approach is based on a) understanding the DFIs existing approach to gender mainstreaming and their internal capacity to integrate gender responsiveness into the design and implementation of climate projects; and b) identifying systemic gender issues and constraints, as well as the risks and opportunities in the sub-projects under the selected thematic pillars. The DFIs selected for the IGFF will play a pivotal role in providing long term finance for capital intensive sectors. By adopting a gender-responsive approach—such as including gender objectives and criteria in directing support to the specific sectors where women-led and -owned companies operate—they can lead the way in ensuring an inclusive decarbonisation journey for India.

9. The Technical Assistance (TA) provided by ADB under component 2 will be instrumental in advancing gender-responsive financing and workforce development by building capacity of DFIs to mainstream gender considerations and support policy reforms for a gender-responsive clean energy financing. Specific areas of support will include:

1. Delivering TA to support DFIs mainstream gender considerations, including monitoring and financing for women-led activities in the clean energy sector.
 - a. Capacity building for gender-disaggregated data utilisation: Conduct 30 training programs for DFIs to design gender-disaggregated data collection frameworks, including tools to monitor financing flows, employment trends, and entrepreneurial outcomes specific to women-led initiatives.
 - b. Establish preferential financing criteria: Collaborate with DFIs and other financial institutions to develop and adopt preferential financing criteria for projects that prioritize the employment or support of women in the clean energy value chain.
 - c. Training programs for women in rural communities: Organize tailored technical and entrepreneurial training programs aimed at equipping women in rural areas with the skills required to actively participate in the clean energy sector, fostering their inclusion in the value chain
2. Support dialogues to advocate for policy frameworks that integrate gender considerations into clean energy financing.
 - a. Stakeholder engagement for policy advocacy: Facilitate 1 structured dialogues between government agencies, DFIs, and private sector stakeholders to advocate for the integration of gender considerations into clean energy financing policies.
 - b. Promote regulatory alignment: Work alongside key institutions such as RBI and SEBI to encourage the adoption of policy frameworks that prioritize gender equity in green finance.

10. By equipping DFIs with the necessary tools, knowledge, and systems, the TA will ensure that gender mainstreaming is not only adopted but also embedded within their operations. Further details on the specific roles and responsibilities of the PIU, including due diligence, oversight, and reporting, are provided in the Roles and Responsibilities section of this document.

11. The table below provides a high-level overview of the selected DFIs² including a summary of their existing gender policies, products and services targeting women, as well as their current GCF accreditation status. This overview highlights the potential to enhance their efforts through capacity building activities within the IGFF.

Table 1. Overview of DFIs.

Potential entry points	National Bank for Agriculture and Rural Development (NABARD)	Rural Electrification Corporation Ltd (REC)	India Infrastructure Finance Company Limited (IIFCL)
Gender mainstreaming and related policies	The Gender Policy of NABARD stipulates that all activities and projects shall be gender transformative, and requires adequate resource allocation and institutional accountability. NABARD further integrates gender considerations into operations, mandates gender-responsive budgeting, monitors progress with gender-disaggregated data, and advocates for women's empowerment in agriculture and rural development.	REC does not have a specific gender mainstreaming policy, but it implements CSR initiatives specifically on women empowerment. The activities focus on skills development and livelihood projects for youth and underprivileged women, maternal care, awareness raising against child marriage, and rural infrastructural development.	While IIFCL does not have a specific gender policy, it has projects that promote gender equality and support vulnerable groups by providing renewable energy, water and sanitation, vocational training, and livelihood opportunities for women, children, the elderly, and differently abled individuals.
Experience promoting female-focused financial products	Actively promotes financial inclusion for rural women through initiatives such as Self-help Groups (SHGs) and Bank Linkage	No financial products identified, but initiatives focused on skills, training, and safe spaces for	No financial products identified, but skill development and cluster-based entrepreneurship projects were

² For information on DFIs and their work please refer to the IGFF Funding Proposal, and Annex 2

	Programme, where 84% taking up these initiatives are women. NABARD also collaborates with Women's World Banking (WWB) to enhance the utilization of basic financial services such as savings, microinsurance, pensions, and access to credit for women and SHGs. NABARD and WWB further collaborate on developing a Gender intentional Index (GIIN) to promote the gender-focused financial inclusion strategies of Regional Rural Banks.	women were identified.	identified including artisanal skill development.
Percentage of female staff	~25% (776 out of 3,134 as of March 31,2024)	~15% (78 of 513) of staff are women (2023/4 Annual Report)	One-third women representation among its Key Managerial Personnel (KMPs)
Women on board or leadership	1 woman on the board (8%)	1 woman on board (14%), and female representation on the board is required by company policy	1 woman on the board (14%), as a government nominee director
Gender inclusive human resources policies	NABARD has a specific gender policy, which promotes gender-inclusive HR policies to ensure equal opportunities, career advancement, and work-life balance for women. The organization fosters gender diversity in leadership and integrates gender sensitivity into its	Their equal Opportunity Policy stipulates non-discrimination on the grounds of sex, and the safety of women is included in its ESG Policy. The corporation upholds dignity and a harassment-free workplace, enforcing a zero-tolerance stance on sexual harassment.	IIFCL includes the promotion of gender equality and the empowerment of women in its CSR policy, including female participation in resettlement activities and income restoration programs. In compliance with the Maternity Benefit Act, 2017, IIFCL supports maternity benefits and

	workplace culture. Since 2019-20, NABARD also implemented a differentiated strategy under the Financial Inclusion Fund (FIF) to address regional financial gaps and promote inclusive financial access, reinforcing its commitment to gender empowerment within and beyond the organization.	An Internal Complaints Committee (ICC) conducts fair investigations and takes action against sexual misconduct, reinforcing commitment to the well-being and protection of women employees.	is exploring partnerships with nearby creches due to space constraints at its rented headquarters. Female employees are entitled to two daily nursing breaks or a one-hour alternative until their child reaches 15 months.
AE status	Accredited to GCF for up to Category B/I-2. Initially accredited in 2015 and re-accredited in 2022, it can submit large-scale proposals over USD 250 million and utilize various funding windows.	Not accredited, will develop projects for this facility up to Cat B/I-2 in alignment with ESMF	Not accredited, will develop projects for this facility up to Cat B/I-2 in alignment with ESMF
Potential capacity building support through IGFF	As an AE, NABARD will currently have processes and policies in place to be IGFF compliant. TA will be provided by the IGFF to strengthen the ability of DFIs to collect and monitor sex disaggregated data	TA support will be provided to i) ensure REC is able to become compliant with IGFF prescribed gender requirements. embed IGFF ii) ensure sub-project selection is gender responsive. TA will also be provided to strengthen ability to collect and monitor sex disaggregated data. Sex disaggregated data will be used to design and launch new gendered financial products and to track impact of such products.	TA support will be provided to i) ensure IIFCL is able to become compliant with IGFF prescribed gender requirements. embed IGFF ii) ensure sub-project selection is gender responsive. TA will also be provided to strengthen ability to collect and monitor sex disaggregated data. Sex-disaggregated data will be used to design and launch new gendered financial products and to track impact of such products.

3.1. Gender Frameworks, Policies and Guidelines

12. Managed by ADB, this Facility will receive co-financing from GCF, implemented through selected DFIs as discussed above. The gender assessment and action plan (GAAP) guiding the Facility builds on a) existing ADB policies, guidelines and procedures on gender mainstreaming, b) GCF guidelines, and c) the existing gender-related practices and institutional structures systems of the DFIs.

13. While gender mainstreaming within the DFIs is still nascent, the Facility seeks to leverage and harmonize the existing elements of gender-related systems or processes. These include existing policies, emerging practices, and sex-disaggregated data collection methods. Where gaps exist, the TA will provide the necessary support to strengthen institutional capacity and fully integrate gender-responsive approaches. Stakeholder engagement with the DFIs (NABARD, IIFCL, REC) and desk research of the DFI's gender-related documents – including their internal practices, capacities, and views on gender mainstreaming – has informed the GAAP.

14. One of the key operational priorities of ADB's Strategy 2030³ is gender equality in Asia, measured across 5 outcomes: economic empowerment, human development, decision-making and leadership, time poverty reduction, and resilience to external shocks. The ADB South Asia Department (SARD) has developed a gender and social inclusion (GESI) framework to guide the implementation of the two operational priority pillars of Strategy 2030, 2 (OP2). OP2 refers to 'accelerating progress on gender equality', whereby ADB commits to support targeted operations to empower women and girls, and gender mainstreaming that directly narrows gender gaps.

15. ADB's guidelines for Design and Monitoring Framework⁴ (DMF) and Corporate Results Framework (CRF) provides the basis for reporting on ADB's operational and organisational performance, and communication with ADB stakeholders about achievement of expected results.

16. Under the ADB gender categorisation framework⁵, a project is classified as one of the following:

- a. Gender Equity Theme ('GEN') where the project explicitly includes gender equality outcomes or empowerment outcomes. A project is assigned GEN if the project outcome directly addresses gender equality and/or women's empowerment by narrowing gender disparities through access to social services; and/or economic and financial resources and opportunities etc.

³ <https://www.adb.org/documents/strategy-2030-operational-plans-overview>

⁴ <https://www.adb.org/documents/guidelines-preparing-design-and-monitoring-framework>

⁵ Guidelines for Gender Mainstreaming Categories of ADB Projects (ADB, 2021)

- b. Effective Gender Mainstreaming (EGM): A project is assigned EGM if the project outcome is not gender equality or women's empowerment, but project outputs are designed to directly improve women's access.
- c. Some Gender Elements (SGE): A project is assigned SGE if by its nature it is likely to directly improve women's access to social services; financial resources and opportunities, basic rural and urban infrastructure, included little, if any gender analysis
- d. No Gender Elements (NGE): the project is assigned NGE if it is not expected to provide direct/tangible benefits to women, although there may be indirect benefits for women.

17. The Facility's approach to gender mainstreaming and integration also closely aligns with the GCF's gender policy. These policies will guide IGFF investments and ensure gender equality is embedded throughout the project lifecycle. These are reflected in the operationalization of these principles in the GAP (Section 5), which include the following key elements that will contribute to women's empowerment to guide IGFF Investments:

- Support the growth of green jobs through relevant upskilling efforts for diverse groups of women to ensure equitable participation in sustainable development, with relevant upskilling efforts for women.
- Ensure an inclusive stakeholder participation and gender-responsive consultation process to incorporate women's needs and priorities and empower them to participate in decision-making.

18. Share learnings on gender mainstreaming within green projects within the IGFF portfolio and more broadly in India. At the Facility level, the gender-related objectives below are articulated so that they can be replicated across a diversity of sub-projects that will be funded.

- Encourage women's economic participation as leaders, employees, and suppliers by promoting the adoption of gender-inclusive practices in workplaces and supply chains.
- Promote access to gender-responsive products, services, and approaches in clean energy, climate-smart agriculture, and food systems, with innovative solutions for women customers and end-users so that they can access and benefit from these resources more equally.
- Support reforms in regulation to encourage adoption of policy frameworks that prioritise gender equity in green finance and disseminate best practices in gender mainstreaming within the financial ecosystem

19. Aligned with the above, specific facility level and DFI outcomes are included in the GAP.

3.2. IGFF Methodology

20. IGFF will finance climate-related projects or interventions (through DFIs) that provide gender-responsive solutions to low-GHG emissions and climate-resilient development. Projects will address the targeted Mitigation Results Areas (MRA). Approved projects must integrate gender and social inclusion criteria, address stated GHG emissions reductions priorities and targets, along with resilience priorities and provide an indication of impact co-benefits applicable to women.

21. All projects must meet specific gender and social inclusion criteria as outlined in the Funding Proposal. These criteria include incorporating GAPs and logical frameworks with quantitative and qualitative gender KPIs that contribute to narrowing existing gender gaps and women's empowerment. Contributions to gender objectives will vary across thematic sectors, with gender priorities identified in collaboration with DFIs.

3.2.1. Gender Requirements at IGFF and Operational (projects/programs)

22. Gender guidelines for the IGFF follow the gender mainstreaming framework and policy guidelines of the ADB, in alignment with GCF gender policy. The Facility will channel funding through selected DFIs, where one is a GCF accredited national entity. IGFF will review the GCF-approved gender assessments (GAs) and gender action plans (GAPs) for the accredited entities and may request clarification or supplementation thereof if required. For the unaccredited DFIs, the IGFF will conduct a gender assessment including a review of their existing Gender and ESS policies and formulation of a GAP to address and support remediation of any identified shortcomings with respect to IGFF requirements. Additionally, the IGFF will require preparation of a GA & GAP for all projects and programs, direct or indirect, to be funded by the Facility. Gender assessments will incorporate sex disaggregated data, as well as include other relevant factors, to enable setting of targets that integrate intersectionality. This further includes the development of GAAP by each of the financial institution in alignment with the program level GAAP.

Pipeline Generation

23. Gender and social inclusion criteria must guide the selection of pipeline projects at the DFI level. DFIs are required to conduct a gender analysis/assessment relevant to the proposed projects during this phase.

Gender Categorization and GAPs

24. All subprojects will advance gender considerations to promote inclusive participation in the clean energy sector and will be assigned a gender category based on ADB's gender categorisation system (e.g., EGM, GEN)⁶. DFIs must prepare a detailed GAP for each project, including: (a) quantitative and qualitative baseline data; (b) gender KPIs with specific,

⁶ All loans will be categorized as Effective Gender Mainstreaming (EGM) according to ADB's Gender and Development Framework Each project

measurable and time bound targets; and (c) alignment with IGFF's overarching gender goals. The PMU will review and validate all GAPs and gender categorization during the due diligence process.

Approval Process

25. The GAPs and gender categorization will undergo validation at both the DFI and IGFF levels and the PMU will ensure that GAPs align with IGFF strategic objectives before project approval.

Implementation and Monitoring

26. Approved projects must adhere to their GAPs and submit regular reports, including sex-disaggregated data and progress on GAP implementation. DFIs are responsible for reporting progress on gender KPIs and GAP implementation to the IGFF. These reports will be compiled and submitted as gender performance reports to ADB and GCF, in accordance with ADB reporting requirements.

27. It is important to note that not all IGFF projects will contribute to all the gender objectives. The degree to which a project or program contributes to these goals will vary across thematic sectors. The identification of which gender objectives that are most relevant and appropriate for each project will be done in collaboration with the DFI in accordance with the ADB gender categorization system and requirements for the project. Additionally, process evaluation at the DFI-level will be conducted, which will assess implementation challenges and compliance with gender standards.

Capacity Building and Technical Assistance

28. To ensure that DFIs have the necessary capacity to support gender work at the project and program levels, the IGFF will provide TA funding related to preparation of their Gender Assessment and Gender Action Plans, as well as for the implementation of specific GAP activities. The IGFF will hire an international gender consultant and a national gender consultants to strengthen the Facility's capacity for gender mainstreaming and support DFIs in achieving gender goals.

3.2.2. Roles and Responsibilities

29. The IGFF will establish a Program Management Unit (PMU) at the facility level to oversee implementation, ensuring strategic alignment, technical support, and guidance across DFIs to ensure is gender is incorporated .

30. At the project level, each DFI will establish a Project Implementation Unit (PIU), also consisting of international and national consultants, to manage DFI-specific operations while coordinating with the PMU both in data generation and reporting of progress. To foster knowledge-sharing and capacity-building, the facility-level team will organize regular knowledge exchange sessions, facilitating best practice sharing and continuous improvement

31. DFIs: DFIs will be formally responsible for the preparation of projects and programs Gender Assessments and Action Plans. They are also responsible for ensuring project compliance with gender requirements and reporting on GAP to IGFF throughout project implementation. Should a new DFI join the IGFF, a due diligence assessment will be conducted by the PMU in line with the initial process at the launch of the facility.

32. ADB as the Accredited Entity will be responsible for implementing and overseeing a governance mechanism to manage the Facility via PMU. ADB will require quarterly reports on project and program gender activities including implementation of the Gender Action Plans, together with other information required on E&S and impact, which will be provided by the Facility. Please refer to Annex 11 of the Funding Proposal (Monitoring & Evaluation) for more details. ADB will hire the international and a national gender consultants mentioned above, to oversee this process.

33. The PMU, staffed and overseen by ADB, will provide TA to build gender mainstreaming capacity of DFIs. ADB PMU will be responsible for initial level Due Diligence of all DFIs (pre-project level); reviewing the GA and GAP for projects submitted by DFIs; Monitoring and Reporting sex-disaggregated data to GCF (project and facility level).

4. GENDER ASSESSMENT

34. This section provides a comprehensive analysis on the national laws and policy frameworks of India in relation to gender, as well as the gender disparities in the country, disaggregated according to the thematic pillars identified by the IGFF. The Facility will draw upon this baseline analysis of the existing gender inequalities, differences in vulnerability and adaptive capacity to climate change, and the current differences in access to resources and training between men and women in India to inform the gender considerations of the IGFF. Conducting a gender analysis from the very beginning of the planning process allows an understanding of gender power relations and roles to be built into the overall operations of the Facility from its inception to delivery.

4.1. National Laws and Policy Frameworks of India on Gender

35. The government of India has demonstrated its commitment to building an enabling environment for gender equality through the adoption of key international agreements, operationalized through the enactment of national laws and policies. A foundational step was India's ratification of the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) in 1993, which legally binds the country to end gender-based discrimination across all sectors. The country further strengthened its commitment by being one of the first countries to adopt the Beijing Declaration and Platform for Action (BPFA) in 1995, a comprehensive policy framework identifying 12 critical areas for achieving gender equality. Additionally, India is a party to international agreements that further protect the rights of women and vulnerable groups, such as the Convention on the Political Rights of Women, International Covenant on Civil and Political Rights, International Covenant on Economic, Social and Cultural Rights, Convention on the Rights of the Child, and Convention on the

Rights of Persons with Disabilities, among others⁷. These further guide the gender-inclusive commitments of India towards the 2030 Agenda for Sustainable Development.

36. These international agreements are operationalized in the country through the formulation of numerous laws, policies, and governing bodies. In 1992, the National Commission for Women was founded as a statutory body mandated to safeguard the rights of women in the country. At the state level, State Commissions for Women have been established in 29 states and 7 union territories to address women's rights issues within their respective jurisdiction⁸. The effective implementation of gender-related policies further relies on appropriate funding allocation, which is why the first Gender Budget Statement (GBS) of India was published in 2005-2006 as a fiscal tool to align budgetary commitments with gender equality goals. Since then, a GBS is published annually to provide an overview of public expenditure for women and girls through the review of gender components in government programs of various ministries⁹.

37. In terms of leadership, India has undertaken significant legislative measures to institutionalize women's representation in the government. In 1993, the 73rd Constitutional Amendment Act mandated that at least one-third or 33% of seats in Panchayati Raj Institutions or village councils are reserved for women. The quota laid the foundation for women's active political participation in India for over 30 years, further influencing the passage of the Women's Reservation Bill in 2023 at the national level. This stipulates that at least 33% of the seats in state legislative assemblies and the Lok Sabha, the lower house of Parliament, are occupied by female candidates. These laws institutionalize the greater participation of women in the policymaking and governance of India¹⁰.

38. The CEDAW Committee's Concluding Observations on the fourth and fifth periodic reports of India also recognized further legislative reforms to advance gender equality in the country. Notable laws include the Criminal Law (Amendment) Act, 2013; Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013; The Protection of Women from Domestic Violence Act, 2006; Protection of Children from Sexual Offences Act, 2012; and the Right of Children to Free and Compulsory Education Act, 2009. The Committee also acknowledged the establishment of a financial services banking company for women in 2013 as a step toward enhancing women's economic empowerment.

⁷ UN Women. (2024). *India: Beijing+30 national report on progress in gender equality and women's empowerment*. https://www.unwomen.org/sites/default/files/2024-09/b30_report_india_en.pdf.

⁸ National Commission for Women. *List of State Women Commissions*. Government of India. Retrieved February 26, 2025, from <http://ncw.nic.in/important-links/list-state-women-commissions>

⁹ Observer Research Foundation. (n.d.). *Gender-responsive budgeting in India: A stocktaking*. Retrieved February 26, 2025, from <https://www.orfonline.org/research/gender-responsive-budgeting-in-india-a-stocktaking>.

¹⁰ UN Women. (2023, October). *India passes law to reserve seats for women legislators*. Retrieved February 26, 2025, from <https://www.unwomen.org/en/news-stories/feature-story/2023/10/india-passes-law-to-reserve-seats-for-women-legislators>.

39. Indeed, India has made significant progress in building an enabling environment for gender equality through comprehensive legal and policy frameworks. However, gaps and opportunities remain to further strengthen the implementation of these policies. The National Human Rights Commission (NHRC) has observed that the effectiveness of the Gender-Responsive Budgeting of India can be amplified by enhancing fiscal policies, transparency in fund utilization, and budget allocations directly linked to measurable outcomes in women's welfare. It has also noted that along with the passage of the 73rd Constitutional Amendment on the increased participation of women in national governance, capacity development and mentoring programs can further empower the elected female representatives¹¹. Among the principal areas of recommendations in the CEDAW Committee's Concluding Observations on India is the adoption of a comprehensive anti-discrimination legislation to protect women from intersectional forms of inequality. This recommendation on an intersectional lens specifically includes mainstreaming the rights of women with disabilities within the national strategies and, facilitating advocacies and regularly collecting disaggregated data on persons with disabilities based on sex, age, type of disability, and region.

40. On violence against women, the CEDAW Committee also noted the efforts of the Indian government to enact policies and legal frameworks to prevent and respond to gender-based violence. However, the Committee is still concerned about the status of increasing cases of violence against women in the country, the escalation of caste-based violence, and the persistence of 'honor crimes' against women and girls, among others. The National Crime Records Bureau reported a 4% increase of crimes against women in India from 2021 to 2022, which translates to approximately 51 cases per hour¹². Disparity between states was also observed, as the NCRB report highlighted that 12 states and Union Territories recorded crime rates higher than the national average, led by New Delhi and followed by the states of Haryana, and Telangana.

41. Within the finance and energy sectors, women are also affected by a less discussed dimension of violence: economic abuse. Traditional gender norms and conservative social expectations can deter women from pursuing employment opportunities, limiting their ability to own assets and to access finance, which can further limit their access to energy. These experiences often result in economic dependence on their husbands and can diminish their autonomy, particularly in situations involving gender-based violence. Economic abuse marginalizes women from household financial decision-making, restricts their ability to earn,

¹¹ National Human Rights Commission. (n.d.). *Women's rights in India: An analytical study*. Retrieved <https://nhrc.nic.in/sites/default/files/Women%E2%80%99s%20Rights%20in%20India%20complete%20report.pdf>

¹² Times of India. (2024, January 5). *India records 51 cases of crime against women every hour, over 4.4 lakh cases in 2022: NCRB report*. <https://timesofindia.indiatimes.com/india/india-records-51-cases-of-crime-against-women-every-hour-over-4-4-lakh-cases-in-2022-ncrb-report/articleshow/105731269.cms>

and exposes them to financial exploitation by their husbands¹³. The lack of entitlement to property and financial assets reduce women's access to finance, and reinforces their dependence on male family members to avail credit from financial institutions. To date, some banks even require husbands or fathers to sign loan application forms for women borrowers¹⁴.

42. The program is designed to mitigate these gender-related risks in access to finance by embedding gender-responsive approaches within the institutional and operational frameworks of the DFIs. It aims to strengthen anti-sexual harassment policies to foster safer and more inclusive work environments and processes, ensuring that women in finance and energy sectors are protected from discrimination and violence. The program also enhances the collection and utilization of sex-disaggregated data, enabling DFIs to develop more targeted and effective financial solutions for women-led businesses in the renewable energy sector. It further provides capacity-building initiatives to equip women with the necessary skills, financial literacy, and technical knowledge to succeed in green energy ventures. To promote gender inclusivity in the sector, the program facilitates multi-stakeholder dialogues with DFIs, policymakers, and industry leaders to advance gender-responsive policies and investments that empower women in finance and renewable energy.

4.2. The role of energy in women's daily lives, health, productivity, and livelihoods

43. Energy poverty disproportionately exacerbates vulnerabilities among women, particularly for economically disadvantaged women, where traditional roles often involve managing household energy needs such as cooking and lighting. Globally, nearly 3 billion people rely on polluting energy sources like firewood for cooking, with over 680 million residing in India. This reliance exposes women to significant health risks, including respiratory illnesses caused by indoor air pollution, and perpetuates socio-economic inequalities by limiting their access to education, entrepreneurship, and community development opportunities. Furthermore, women's vulnerability to climate change is heightened by their dependence on traditional energy sources, restricted mobility, and exclusion from decision-making processes. Socio-economic inequalities, cultural barriers, and limited access to financial and natural resources further constrain their adaptive capacity. Expanding access to clean, affordable, and reliable energy is crucial for advancing gender equality, reducing health risks, and fostering inclusive development. Reliable energy access empowers women by enabling educational attainment, improving health outcomes, and unlocking opportunities for income generation and community participation, thus addressing critical gendered disparities in energy poverty.

¹³ Raj, A., McDougal, L., & Silverman, J. G. (2023). *Economic abuse and intimate partner violence in India: The role of women's employment and financial inclusion*. BMJ Global Health, 8(10), e012576. Retrieved from <https://gh.bmj.com/content/8/10/e012576>

¹⁴ World Bank. *Improving access to finance for women-owned businesses in India*. Retrieved from <https://openknowledge.worldbank.org/server/api/core/bitstreams/61a1f630-279f-5fda-bd4f-e6c0395b4a33/content>.

4.3. Gendered Disparities in Energy Access in India: Challenges and Opportunities

44. Energy access in India continues to exhibit significant gender disparities, particularly between rural and urban areas and among marginalized populations. Rural women bear the disproportionate burden of managing household energy needs, often spending an estimated 20–40 hours per week collecting firewood and other traditional fuels (IEA, 2021)¹⁵. This task is both physically demanding and time-consuming, limiting opportunities for education, income generation, and leisure. In urban areas, women have better access to modern energy sources such as LPG and electricity. However, challenges related to affordability, reliability, and safety persist. For instance, only 50% of households using LPG as their primary cooking fuel have consistent supply due to cost barriers¹⁶.

45. Despite significant progress in electrification through initiatives such as the Saubhagya Scheme, approximately 680 million people in India—predominantly in rural areas—still rely on traditional biomass for cooking. The reliance on traditional fuels disproportionately affects women's health, increasing exposure to indoor air pollution, which contributes to approximately 500,000 premature deaths annually¹⁷. Limited access to electricity also impacts essential tasks such as lighting, cooking, and food preservation, further amplifying gender inequalities in health, education, and productivity.

46. Men typically have greater access to financial and resources, which allows for more adaptive flexibility in energy use. In contrast, women face heightened constraints due to limited resource ownership, cultural norms, and disproportionate responsibilities in household energy management. Studies indicate that women own only 13% of land in India¹⁸, which restricts their ability to secure financing for clean energy technologies such as solar home systems or biogas units.

4.3.1. Intersectional and Regional Disparities

47. Generally, the intersectionality of gender with factors such as caste, economic status, age, disability, and geography influence women's access to opportunities and resources in India, including energy. The CEDAW Committee's latest concluding observations on India expressed concerns over marginalized groups, such as Dalit and Adivasi women who continue to face caste and gender-based discrimination. The female literacy rates among Dalits (57%) and Adivasis (49.35%) remain below the national average (65%). Additionally, these women face substantial challenges in accessing medical care due to caste-based discrimination¹⁹.

¹⁵ International Energy Agency (IEA), 2021. "World Energy Outlook."

¹⁶ Ministry of Petroleum and Natural Gas (MoPNG), Government of India, 2023. "Pradhan Mantri Ujjwala Yojana."

¹⁷ World Health Organization (WHO), 2022. "Air Pollution and Health Impacts."

¹⁸ Food and Agriculture Organization (FAO), 2020. "Gender and Land Rights in India."

¹⁹ Rao, M. (2023, January 26). *Caste out*. Think Global Health. Retrieved February 26, 2025, from <https://www.thinkglobalhealth.org/article/caste-out>.

48. About 14.5% in India are female-headed households, among which single mothers are the most economically disadvantaged with 42% belonging to the the lowest wealth index quintile. Due to the gender gap in education, 60% of female heads have not gone to school, and are also less likely to own land in comparison to male household heads (40% vs. 70%)²⁰. Women entrepreneurs also struggle, owning just 20% of businesses in India, primarily in lower-revenue sectors. Safety concerns, lack of professional networks, and societal biases further restrict their progress.

49. Concerns over the low enrolment of girls with disabilities and minorities were also expressed in CEDAW Committee's observations. The school dropout rate for adolescent girls reaches 64%, and the retention and completion rates of girls at secondary level remain low, especially in rural areas. Among the reasons include early marriage, poverty, and poor sanitation particularly during menstruation. The Committee is also concerned that women with disabilities face high poverty rates and limited access to education, employment, and healthcare, particularly in rural areas. They encounter multiple barriers, including inaccessible public spaces and utilities, frequent harassment in public, and exclusion from decision-making processes. Elderly women and persons with disabilities also face systemic disadvantages. Over 70% of elderly women suffer from chronic illnesses, and only 28% receive pension and financial support. Low literacy rates further limit their access to services, and social isolation affects 35% of elderly women. For persons with disabilities, employment is a major issue: only 0.28% is employed in the private sector and 0.05% in multinational companies.

50. Gender inequalities in energy access further intersect with social and regional disparities. In northern India, cultural and religious norms significantly limit women's participation in the labor force, with female labor force participation rates as low as 9% in some states²¹. This constrains their ability to afford modern energy solutions. In contrast, in southern and western India, socio-economic factors such as lower household incomes and education levels act as primary barriers. Rural women are particularly affected by energy poverty, which limits their resilience to climate shocks and increases dependence on traditional fuels. Climate change exacerbates these vulnerabilities, as prolonged droughts and deforestation reduce the availability of biomass fuels, forcing women and girls to travel longer distances for fuelwood collection.

4.3.2. Opportunities for Transformative Change

51. Despite these challenges, women hold immense potential to drive clean energy transitions. Evidence shows that empowering women through targeted interventions can significantly enhance energy access outcomes. For example, women-led initiatives in decentralized renewable energy systems, such as solar micro-grids and biogas plants, have

²⁰ Licart, T. (2020). *Rethinking female-headed households in India: Diversity of household structure, contrasting socioeconomic status*. European Population Conference 2020. Retrieved from <https://epc2020.eaps.nl/uploads/200909>

²¹ International Labour Organization (ILO), 2023. "India Labor Market Statistics."

successfully improved energy access in rural areas of states like Rajasthan and Odisha²². Women's involvement in clean cooking programs has also demonstrated notable health and economic benefits. However, these roles often require substantial investments in capacity building and infrastructure support.

52. ADB's operational priorities align with these opportunities, emphasizing gender-responsive energy planning and investments in clean energy solutions. Targeted policies and programs, such as subsidized financing for women entrepreneurs in renewable energy and awareness campaigns addressing cultural norms, are critical to reducing the gender gap in energy access. Scaling up initiatives such as the Pradhan Mantri Ujjwala Yojana (PMUY), which has already benefited over 80 million women by providing subsidized LPG connections, can further improve outcomes²³.

53. Relevant to the approaches of this project in addressing gender disparities in energy access in India, the gender assessment provides recommendations for targeted interventions. These include specific activities on strengthening gender awareness and existing institutional measures of DFIs, while enhancing their utilization of sex-disaggregated data and gender indicators. Upskilling female entrepreneurs in green economy, strengthening their access to finance, and supporting their participation in energy decision-making through capacity-building programs can amplify their influence in local energy planning. Supporting women entrepreneurs with tailored financial assistance and technical training can enable their leadership in renewable energy solutions, particularly in decentralized systems. Additionally, investing in gender-disaggregated data collection and research is crucial to inform targeted interventions, track progress, and ensure equitable access to energy resources, empowering women as key agents in sustainable energy transitions.

4.4. Women in the renewable energy workforce in India

54. Women in India's energy sector face significant challenges that hinder their full participation and advancement, including in renewable energy. Cultural and patriarchal norms often restrict women's employment opportunities, particularly in traditionally male-dominated industries like energy. Safety concerns and lack of human resources policies that support women's participation in the sector further limit their workforce participation, as societal perceptions and inadequate infrastructure deter women from pursuing careers in this field. Additionally, limited access to education and training in science, technology, engineering, and mathematics (STEM) disciplines reduces the pool of qualified female candidates for green jobs, including energy sector roles. Addressing these challenges requires comprehensive strategies, including promoting gender-inclusive policies in the workplace, enhancing safety measures, and encouraging women's education and training in relevant fields.

²² Self Employed Women's Association (SEWA), 2022. "Empowering Women in Renewable Energy."

²³ Ministry of Petroleum and Natural Gas (MoPNG), Government of India, 2023. "Pradhan Mantri Ujjwala Yojana."

55. As per the latest government data, female Labour Force Participation Rate in the country has improved significantly by 4.2 percentage points (in 2012) to 37% in 2023²⁴ attributed mostly to policy initiatives around skills development, entrepreneurship facilitation and safety in the workplace. *Table 1* below reflects the type of high-level data available, through which there are significant differences across industries and sub-sectors.

Table 2. Percentage distribution of work Participation by Sector by gender

Broad Industry division	RURAL		URBAN	
	Male	Female	Male	Female
Agriculture	51.0	75.9	5.4	11.1
Mining and Quarrying	0.4	0.1	0.4	0.1
Manufacturing	7.9	7.9	21.5	24.3
Electricity, Water	0.5	0.1	1.4	0.5
Construction	16.6	5.3	12.9	3.9
Trade, Hotel and restaurants	10.6	3.7	25.2	14.8
Transport, Storage & Communications	5.6	0.3	12.5	4.6
Other services	7.5	6.8	20.7	40.7

Source: (PLFS- 2022, NSO, MOSPI)

56. Almost 80% (79%) of India's female labour force is situated in rural areas (*ADB 2023, Statistical portrait of Indian Female Labour Force*), hence distribution of jobs is skewed towards agriculture in the rural economy. Low-earning, unpaid family work and own account work constitute the highest proportion of female employment in rural India, while urban areas have mostly higher-paid regular salaried jobs. At the urban level, the female workforce is more broadly distributed across various sectors. Manufacturing and related industries make up roughly 25% of female employment, closely followed by service industries like education

²⁴ Ministry of Women and Child Development, India, 2023.

(12%); trade, retail and wholesale (12%); household services (10%); and business and professional services (9%)²⁵.

57. Difference in female labour force participation across regions within India is marked and must be taken into consideration while designing programs and projects. The low female labour market participation in the North seems to reflect strong cultural and religious factors and less the socioeconomic status concerns which are stronger in the more developed and educated South and West²⁶. The implementing DFIs are aware of these differences and factor this information into program planning in such a way that pilot projects take place where conditions for success are in place. These successful pilots are then adapted and replicated in other regions.

58. India's renewable energy sector is expanding rapidly, presenting significant opportunities for women's economic empowerment. However, women's participation in this field remains disproportionately low, highlighting critical barriers that must be addressed to ensure an inclusive transition to green energy. Below, key issues concerning women's involvement in the renewable energy workforce, their participation in STEM education, and the challenges they face are outlined.

59. **Women's participation in STEM education.** Enrolment rates: women make up approximately 43% of STEM graduates in India, the highest percentage globally. This indicates significant potential for women to contribute to the renewable energy sector, which demands technical expertise.

60. **Transition from education to workforce.** Despite high STEM graduation rates, only about 14% of STEM-qualified women secure positions as scientists, engineers, or technologists in research and development institutions. Female representation declines significantly at higher organisational levels, with women largely underrepresented in leadership and decision-making roles within energy and STEM-related industries.

61. **Women's participation in the renewable energy sector.** Women constitute less than 11% of India's solar energy workforce, compared to the global average of 32% in the renewable energy sector. While women's representation is higher in specific segments, such as solar PV manufacturing, where they account for 40% of the workforce, their participation decreases sharply in areas like construction, commissioning, and maintenance roles.

62. **Barriers to participation.** Women face limited access to industry-aligned education and vocational training programs in renewable energy, with low participation in technical trades at Industrial Training Institutes (ITIs) further hindering their entry into technical roles. In the workplace, women in the renewable energy sector encounter unequal company policies, inadequate safety measures, and a significant gender wage gap, even when their skill levels are comparable to their male counterparts. Additionally, cultural and societal norms often

²⁵ ADB, Policy Brief, 2023.

²⁶ OECD, Determinants of low female labour force participation in India, Working Paper, 2015.

discourage women from pursuing careers in traditionally male-dominated fields like energy, further limiting their opportunities.

63. **Addressing barriers and promoting inclusion.** The Indian government and key organisations have introduced various programs to enhance women's participation in the workforce. The Ministry of New and Renewable Energy (MNRE) offers initiatives aimed at increasing women's involvement in renewable energy projects through skill development programs. Similarly, the Skill Council for Green Jobs (SCGJ) and the Council on Energy, Environment, and Water (CEEW) provide training for women in areas such as solar panel installation, maintenance, and energy entrepreneurship.

64. Private sector companies are also taking steps to improve workplace conditions through gender-sensitive policies, including quotas for female recruitment, gender-responsive workplaces, and tailored safety measures such as PPE designed for women's body shapes and the provision of separate facilities at worksites. Additionally, some firms are promoting flexible work arrangements, enabling women to better balance their professional and personal responsibilities.

4.5. Gendered dynamics across the IGFF focus areas.

65. In this section we look at gender dynamics across the three broad objectives of IGFF outlined in the Funding Proposal:

4.5.1. Women and powering India's energy transition

66. Women can play transformative roles in energy transition projects in India, contributing to various aspects such as project planning, technical implementation, policy development, and community engagement.

67. Renewable energies are already a more diverse sector than traditional energy and fossil fuel sectors; solar tops the charts with 40% FTEs occupied by women worldwide²⁷. Women represent a mere 11 percent of the workforce in India's renewable energy sector, significantly lower than the global average of 32 percent²⁸. But this is higher than the percentage of women in other energy sectors in India, such as coal, oil and gas companies, and electricity utilities.

68. Women working on projects in this sector need a range of skills to contribute effectively. On the technical side, expertise in electrical engineering, renewable energy technologies, project management, and data analysis are essential. Knowledge of grid integration, energy storage systems, and renewable energy policy frameworks are also crucial, particularly as India moves towards more complex grid-scale systems that require seamless integration of

²⁷ IRENA's report 'Renewable Energy: A Gender Perspective', 2019

²⁸ McKinsey global institute study.

renewable sources. Additionally, skills in software development for smart grid technologies, operation and maintenance of renewable installations, and financial modelling for large-scale energy investments are becoming increasingly important²⁹.

69. Non-technical skills such as leadership, communication, stakeholder management, and the ability to navigate regulatory and compliance frameworks are equally vital to ensure that women can hold decision-making and managerial positions in energy projects.

70. There is currently a low level of skills among women in India's large-scale energy transition sector, especially in technical and leadership roles. This gap is often due to a combination of gender biases in science, technology, engineering and mathematics (STEM) education, limited access to technical training, and societal norms that discourage women from pursuing careers in traditionally male-dominated industries like energy.³⁰ However, efforts are being made to address this skills gap through various upskilling and capacity-building initiatives. For example, the Ministry of New and Renewable Energy (MNRE) has launched programs aimed at enhancing women's participation in renewable energy projects. Additionally, organizations like the Council on Energy, Environment and Water (CEEW) and the Skill Council for Green Jobs (SCGJ) offer vocational training programs specifically targeting women. These initiatives focus on upskilling women in areas such as solar panel installation, maintenance, and energy entrepreneurship. Partnerships between the government, NGOs, and the private sector are key to scaling these efforts and ensuring that women are equipped with the skills needed to participate meaningfully in India's energy transition.

71. Potential IGFF sub-projects in this pillar include round-the-clock solar projects, green hydrogen production. Gender dynamics in energy transition projects, such as round-the-clock (RTC) solar and energy storage solutions, are critical to ensuring equitable and inclusive development. These projects are essential for transitioning to a sustainable energy future, and the participation of women can significantly influence their success and impact.

72. Women's participation varies across the value chain of rooftop solar companies³¹. The design and pre-construction phase, and the corporate segment – which offer mostly office-based positions – have a relatively high share of female employees at 18% and 34%, respectively. In the area of construction and commissioning, women constitute 3%, and, in operations and maintenance, a mere 1%. Both areas involve frequent site visits or onsite work. Factors governing the low representation of women include a lack of access to opportunities for women due to safety and security concerns at project sites and misperceptions of women's

²⁹ A just transition or just a transition: Making the case for women in energy, RES4Africa Foundation, 2024

³⁰ Women working in the rooftop solar sector, IEA and CEEW, 2019

³¹ International Energy Agency, 2019.

physical capabilities in some roles, as well as insufficient human resource policies beyond legally mandated requirements.

73. Large scale renewable energy projects provide opportunities for direct employment for women. Quotas for female recruitment, together with gender sensitive workplaces including part time work, separate male and female toilets, and PPE designed for women's body shapes all contribute to a gender responsive workplace and successful retention of female staff. Women can be employed in various roles within RTC solar projects, including technical positions (such as engineers and technicians), administrative roles, and project management. Women's involvement in community engagement activities can help address local concerns, promote project acceptance, and ensure that the benefits of solar projects reach all community members. Women entrepreneurs can establish businesses in the solar supply chain, including manufacturing, installation, and maintenance service. Sale of solar panels or energy efficient appliances is an area of opportunity for women's entrepreneurship.

74. Renew, one of India's leading renewable energy companies is launching a first-of-its-kind round-the-clock renewable project in India. For green hydrogen, a very new segment within the renewable energy space, there is not yet much information available on women's participation. This information will be gained through information on knowledge sharing, more projects, lessons learnt.

4.5.2. Women and energy access for cleaner living

75. Providing greater access to alternative sources of fuel for cooking and have a direct impact on women's health, productivity, access to education and participation in the workforce. Potential IGFF sub-projects in this objective include e-mobility (2-3-wheeler and related infrastructure) and compressed biogas.

76. Clean energy access has a direct correlation with the improved health of women. For example, switching from firewood to clean stoves reduces indoor air pollution, which is responsible for nearly 600,000 premature deaths annually in India, most of them women and children.³² This shift also boosts productivity by freeing up time previously spent on unpaid chores (gathering of firewood), allowing women to participate in paid work. The clean cooking value chain presents significant opportunities for women's economic empowerment. According to a World Bank study, around 13% of enterprises in the clean cooking sector are female-owned, and women remain underrepresented in leadership roles.³³ However, they can contribute as entrepreneurs, technicians, and sales agents, creating pathways for women to shape and benefit from this growing global industry. Improved access to finance for women-led enterprises in the clean cooking value chain can lead to greater female participation.

³² The health and economic impact of air pollution in the states of India: Global Burden of Disease Study 2019

³³ Advancing Gender-Equal Benefits in Clean Cooking Operations, ESMAP, 2022

Women's involvement in agriculture, which provides feedstock for biogas production, such as crop residues, animal manure, and organic waste, is another key opportunity. Their participation in collecting and segregating organic waste from households, markets, and farms is critical to biogas production, offering a way for women to participate in and lead localized clean energy initiatives.

77. Despite these opportunities, there are significant barriers. Gender norms often limit women's access to education, particularly in STEM fields, which are critical for advancing in the clean energy sector. A report by the International Renewable Energy Agency (IRENA) found that women make up only 32% of the global renewable energy workforce, and in technical roles, this percentage drops even lower.³⁴ Cultural and social barriers, including safety concerns and limited mobility in rural areas, also hinder women's participation in energy projects. However, various enablers can support women's involvement in this sector. Targeted capacity-building programs, financial incentives, and mentorship initiatives can equip women with the skills and confidence to enter and excel in the clean energy industry. Programs like the UN's Clean Cooking Alliance and India's "Ujjwala Yojana," which provides subsidized LPG connections to women below the poverty line, are already making a difference.³⁵ Scaling these initiatives while addressing structural barriers can accelerate women's participation in India's clean energy transition.

78. The biogas industry presents a powerful opportunity for women to play an active role in renewable energy projects. Unlike traditional energy sectors that are often male-dominated, the biogas sector is more inclusive and offers multiple entry points for women's participation across the value chain. Women can contribute significantly to feedstock collection, operation and maintenance, research and development, and project management. As noted above, a study by the International Renewable Energy Agency (IRENA) notes that women comprise about 32% of the renewable energy workforce, higher than in traditional energy sectors, but there is room for more targeted interventions. By enabling women to become entrepreneurs who establish small-scale biogas plants, they can serve local communities while producing clean energy and bio-fertilizers for agriculture. Successful examples can be found in India's "Biogas Support Program," which encourages women to take leadership roles in setting up and operating biogas plants.³⁶ Women in the biogas industry are not only challenging traditional gender norms but are also driving sustainable development by contributing to energy access and food security, creating a more diverse and equitable renewable energy industry.

³⁴ Renewable Energy: A Gender Perspective. IRENA, 2019

³⁵ Global Subsidies Initiative-IISD and Integrated Research and Action for Development (IRADe). (2019).

³⁶ Biogas as sustainable approach for social uplift in South East Asian Region, 2023

79. In transportation, empowering women through green mobility systems can be equally transformative. Safe, accessible, and gender-sensitive transport systems allow women and girls to better participate in the workforce and education. Mapping the distinct mobility patterns of men and women, as well as individuals with disabilities, can provide invaluable insights into how they engage with public transport and how new systems can be tailored to meet their needs. According to UN Women, a lack of safe and reliable transport is one of the biggest barriers to women's participation in the economy.³⁷ Integrating women into transportation planning, both as users and as part of the workforce, can significantly boost female empowerment. The GCF can play a role in supporting green mass transit projects that not only reduce GHG emissions but also promote health co-benefits through reduced air pollution.³⁸ Moreover, initiatives like the Small Industries Development Bank of India's (SIDBI) "C to D to E" electric vehicle program exemplify good practice by encouraging women to become EV users, drivers, and even entrepreneurs in the electric vehicle sector. This focus on women as both consumers and leaders in the transport and mobility sector can catalyse a more inclusive transition to green transportation, with broader economic and social benefits.

80. Consultative process is key to designing urban transport systems in a way that it addresses women's travel needs. Inclusive design features such as ramps, rest benches and secure lighting to enhance security, and ticketing systems that provide low-cost multiple short trips will go a long way. The nascent electric vehicles industry is leading the field in terms of women empowerment-both as customers and decision makers. 25 % of EV buyers in India are women, which is double the industry average of 12% of women buyers of petrol and diesel cars. Women already account for 37% of its workforce, managing multiple roles and responsibilities across engineering, manufacturing, field, HR, IT, finance, and other functions. The reasons for higher inclusion could be that the EV segment is less mechanical and more electrical/electronic-oriented thereby lending well to the inclusion of more women across functions. Representation of women is seen in all levels of hierarchy.

4.5.3. Women and resilient energy systems for rural and urban areas.

81. IGFF goals of working at the food, agriculture, energy nexus inevitably mean attention must be paid to the agricultural sector. According to the UN Food and Agriculture Organisation (FAO), 60-80% of farmers in non-industrialised countries are female.³⁹ Women farmers perform a wide set of critical activities throughout the crop cycle, from sowing to harvesting and post-harvesting. Only 13 percent of rural women who are engaged in agriculture own land and absence of land rights for women has been a critical barrier for them in accessing their rights and entitlements, such as credit, agriculture input subsidies, technology, information

³⁷ Closing Gender Gaps in Transport, World Bank, 2024

³⁸ Adaptation: Accelerating action towards a climate resilient future, GCF, 2019

³⁹ Women and sustainable food security, FAO <https://www.fao.org/4/x0171e/x0171e02.htm>

and extension⁴⁰. Consequently, women's adaptive capacities are significantly more limited as compared to men- with limited access to assets, resources, credit facilities, markets, and information and technology. Women's increased vulnerability to climate change and reduced access to climate smart agricultural (CSA) practices can be attributed to limited land ownership, poor access to credit, reduced access to information and formal extension, and time pressures from multiple domestic and productive demands on their time⁴¹. Given the differences in the resilience capacities and response options of men and women farmers, with the latter more vulnerable to climate shocks, it is imperative to understand the gendered adoption of CSA practices and the associated constraints, especially related to information and extension, to help facilitate better adoption of improved practices and technologies.

82. Potential IGFF sub-projects in this pillar include Decentralised RE to power livelihood applications, off grid solar water pumps, rooftop solar for MSMEs. These projects will collectively lead to not only enhanced agricultural productivity using renewable energy sources but will also build climate resilience of women in this sector and increase their employment and entrepreneurship opportunities.

83. While women constitute a third of the total workforce in the renewable energy industry, they appear to have a higher representation in the solar PV sector, with a 40% share⁴². This is also the case in decentralised renewable energy (DRE), where solar technologies are prominently deployed.

84. The solar targets (40 GW of rooftop solar installations sanctioned by 2026) are a major opportunity for sustainable development and for women's employment. It has the potential to create a considerable number of jobs attractive to high skilled women, largely untapped pool in India.

5. GENDER ACTION PLAN

85. The Gender Action Plan (GAP) is ADB's key gender mainstreaming tool and mechanism for ensuring gender-inclusive design and implementation of projects. The Gender Action Plan is aligned with the Facility level IMRF (Section E of the Funding Proposal) which outlines the theory of change along the 2 components. The objective of the TA support (component 2) is to support institutionalizing green lending and advancing gender responsive

⁴⁰ Indian Council for Research on International Economic Relations, Gulati, A., Sharma, P., Samantara, A., & Terway, P, 2018, Agriculture extension system in India: Review of current status, trends and the way forward.

⁴¹ Gender, agriculture policies and climate smart agriculture in India, iFRI, 2022.

⁴² Solar PV: A gender perspective, IRENA 2022.

financing and workforce development. Consultations with women's groups and relevant institutions will take place during the conduct of due diligence process.

Impact Statement: **IF** India's Development Financial Institutions (DFIs) have access to concessional finance and enhanced technical capacities to design and implement financing products for emerging clean energy technologies, and if project developers (incl. MSMEs) and private/public FIs are equipped to access climate finance, **THEN** the India Green Finance Facility (IGFF) will catalyze large-scale investments in clean energy, mobilizing public and private capital that contributes to the **reduction of 50 million metric tons of CO₂ eq.** **BECAUSE IF** India's Development Financial Institutions (DFIs) integrate gender-responsive financing practices into their lending operations—by applying gender criteria, collecting sex-disaggregated data, and designing financial products tailored to the needs of women entrepreneurs and workers in the clean energy sector, **THEN** the IGFF will catalyze financing towards projects that actively promote women's participation and leadership in clean energy value chains, **BECAUSE** this will address existing gender disparities in access to finance and opportunities, enabling more women to engage meaningfully across the clean energy ecosystem.

Outcome Statement: Project developers and public/private FIs have access to inclusive finance for emerging clean energy technologies Participating DFIs demonstrate increased institutional capacity to deploy financing to women, track sex-disaggregated outcomes, and design inclusive clean energy investments.

Output 1: Policy and regulatory frameworks strengthened to support green lending practices and gender responsive clean energy financing

Activities	Indicators and Targets	Timeline	Responsibilities	Cost (US\$)
1. Conduct targeted gender awareness programs at DFIs to support the development and adoption of policies aligned with 2X Challenge criteria.	<p>1.1 Conduct 30 Training programs in at least 3 DFIs delivered within 12 months of launch of the Facility.</p> <p>1.2 At least two seminars on gender and renewable energy conducted for all DFIs, with a minimum of 70% of participants (sex-</p>	<p>1.1: Year 1</p> <p>1.2: Year 2</p> <p>1.3: End of project.</p> <p>1.4: Year 2</p>	IGFF PMU and DFIs	431,000

1.1	Develop and customize gender awareness training materials tailored to the specific operational contexts of DFIs.	disaggregated) reporting increased knowledge of gender-responsive interventions to enhance women's participation, including from marginalized populations, across the energy sector value chain.	1.5: Year 3		
1.2	Organize interactive workshops for management and staff, including one-on-one support if needed, focusing on the importance of gender equality, the business case for 2X compliance, and best practices for implementation.	1.3 At least 3 gender-responsive human resources policies in at least 3 DFIs adopted by the end of the project.			
1.3	Facilitate technical sessions to support DFIs in developing and implementing gender-responsive workplace policies and processes (e.g., parental leave, flexible working, and anti-harassment policies).	1.4 100% of participating DFIs establish internal gender task force.			
1.4	Support DFIs in establishing internal task forces to monitor and evaluate gender integration progress.	1.5 At least 3 GA & GAP in at least 3 DFIs developed.			
1.5	Support DFIs to prepare gender action plans at project and institutional levels.				

<p>2. Build the capacity of DFI loan officers to collect, analyze, and utilize sex-disaggregated data for the IGFF Monitoring and Reporting.</p> <p>2.1 Develop and distribute standardized templates and tools for collecting sex-disaggregated data.</p> <p>2.2 Conduct capacity-building workshops for DFI loan officers, focusing on data collection methodologies, gender-sensitive client engagement, and using data for decision-making.</p> <p>2.3 Establish guidelines for incorporating sex disaggregated data into loan documentation and reporting systems.</p>	<p>2.1 Train at least 100 loan officers across all DFIs</p> <p>2.2 Achieve at least 90% compliance in collecting sex-disaggregated data for new loan applications within participating DFIs.</p> <p>2.3 Generate and analyze sex-disaggregated data reports from all DFIs to contribute to IGFF Monitoring and Reporting and at least one knowledge products/case study.</p>	<p>2.1: Year 2</p> <p>2.2: End of project</p> <p>2.3: End of project.</p>	<p>IGFF PMU and DFIs</p>	<p>\$278,000</p>
<p><i>Output 2:</i> DFIs will gain competence on institutionalising gender responsive green lending practices by adopting standardised tools and frameworks</p>				
Activities	Indicators and Targets	Timeline	Responsibilities	Cost

<p>3. Identify and align gender indicators to be included in sub-project selection criteria across all DFIs, ensuring alignment with IGFF's project selection criteria.</p> <p>3.1 Conduct consultations with DFIs to review existing sub-project selection criteria and identify gaps in gender considerations.</p> <p>3.2 Facilitate and draft a set of proposed gender indicators with an intersectional lens, aligned with IGFF's criteria, focusing on measurable impacts such as women's economic participation, leadership roles, and access to resources.</p> <p>3.3 Provide technical support to integrate the agreed gender indicators into the sub-project selection criteria of all three DFIs.</p> <p>3.4 Establish a reporting framework for DFIs to monitor and evaluate gender-related outcomes in sub-projects.</p>	<p>3.1 Conduct consultation to identify gender gaps in all participating DFIs</p> <p>3.2 100% of participating DFIs approve a common set of at least 5 gender indicators aligned with IGFF criteria for use by all DFIs in the sub-project selection</p> <p>3.3 At least 75% of sub-projects technologies include gender indicators in their selection criteria.</p> <p>3.4 At least 10% of the women-led businesses in DRE solutions and e-mobility receiving financing.</p>	<p>3.1: Year 1</p> <p>3.2: Year 2</p> <p>3.3: Year 2</p> <p>3.4: End of project</p>	<p>IGFF PMU and DFIs</p>	<p>\$273,000</p>
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Output 3: Support dialogues knowledge exchange and collaboration to advocate and promote gender inclusion in the green economy in India

Activities	Indicators and Targets	Timeline	Responsibilities	Cost
<p>4. Conduct targeted research, capacity-building workshops and facilitate dialogues to promote gender responsiveness with an intersectional lens</p> <p>4.1 Consultation with women's groups, gender experts, and relevant institutions / ministries with focus on gender equity during the due diligence process</p> <p>4.2 Develop case studies and knowledge products for gender responsive energy investments.</p>	<p>4.1a Conduct consultation with women's groups, gender experts, and relevant institutions/ministries with focus on gender equity.</p> <p>4.1b Organize four workshops with participation from at least 200 stakeholders (40% women) from public and private sectors, focusing on integrating gender into climate investment frameworks.</p> <p>4.2a Develop at least three country-specific case studies showcasing successful gender-responsive energy investments.</p> <p>4.2b Publish a policy brief summarizing key recommendations and disseminate it to 1,000 stakeholders through webinars and online platforms.</p>	<p>4.1: Year 2</p> <p>4.2: Year 4</p>	IGFF PMU	\$308,000

5. Upskilling of female entrepreneurs in green economy in India 5.1 Design a modular training program covering green business development, access to finance, and climate-resilient practices, with at least three modules developed	5.1 Provide skill development programs for at least 2500 female entrepreneurs in the green economy in India, including training to help women access green loans, grants, and finance schemes, and prepare business plans tailored to green investments.	5.1: Year 3	IGFF PMU	.
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Total Budget for GAP implementation – US\$ 1,290,000

