



# Indo-German Solutions for Gender Equality and Women's Empowerment

OPPORTUNITIES FOR COLLABORATION IN THE INDO-GERMAN GREEN AND SUSTAINABLE DEVELOPMENT PARTNERSHIP (GSDP)

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**On behalf of**

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# Abbreviations

<b>AIBP</b>	Accelerated Irrigation Benefits Programme
<b>AIWC</b>	All India Women's Conference
<b>AMRUT</b>	Atal Mission for Rejuvenation and Urban Transformation
<b>AREAS</b>	Association of Renewable Energy Agencies of States
<b>ASRLM</b>	Assam State Rural Livelihoods Mission
<b>BEE</b>	Bureau of Energy Efficiency
<b>BEST</b>	Brihanmumbai Electric Supply and Transport
<b>BMGF</b>	Bill and Melinda Gates Foundation
<b>BMZ</b>	Federal Ministry for Economic Cooperation and Development
<b>CAD&amp;WM</b>	Command Area Development & Water Management
<b>CEEW</b>	Council on Energy, Environment and Water
<b>CRP</b>	Community Resource Persons
<b>CSR</b>	Corporate Social Responsibility
<b>DARE</b>	Department of Agricultural Research and Education
<b>DAY-NRLM</b>	Deendayal Antyodaya Yojana–National Rural Livelihood Mission
<b>DC</b>	Development Cooperation
<b>DRE</b>	Decentralized Renewable Energy
<b>GSDP</b>	Partnership for Green and Sustainable Development
<b>HUDCO</b>	Housing and Urban Development Corporation
<b>ICAR-CIWA</b>	Indian Council of Agricultural Research – Central Institute for Women in Agriculture
<b>ICCC</b>	Integrated Command and Control Centres
<b>ICLEI</b>	Local Governments for Sustainability
<b>ICRW</b>	International Center for Research on Women
<b>IFPRI</b>	International Food Policy Research Institute
<b>IGEF</b>	Indo-German Energy Forum
<b>IIHS</b>	Indian Institute of Human Settlements
<b>IMD</b>	Indian Meteorological Department
<b>ISA</b>	International Solar Alliance
<b>ISEC-CRUA</b>	Institute for Social and Economic Change
<b>MHA</b>	Ministry of Home Affairs
<b>MGNREGA</b>	Mahatma Gandhi National Rural Employment Guarantee Act
<b>MNRE</b>	Ministry of New and Renewable Energy
<b>MoAFW</b>	Ministry of Agriculture & Farmers' Welfare
<b>MoEFCC</b>	Ministry of Environment, Forests and Climate Change
<b>MoFPI</b>	Ministry of Food Processing Industries
<b>MoHUA</b>	Ministry of Housing and Urban Affairs
<b>MoRD</b>	Ministry of Rural Development

<b>MoRTH</b>	Ministry of Road Transport & Highways
<b>MoSPI</b>	Ministry of Statistics and Programme Implementation
<b>MoWCD</b>	Ministry of Women and Child Development
<b>MSDE</b>	Ministry for Skill Development & Entrepreneurship
<b>NABARD</b>	National Bank for Agriculture and Rural Development
<b>NFSM</b>	National Food Security Mission
<b>NGO</b>	Non-Governmental Organisation
<b>NIUA</b>	National Institute of Urban Affairs
<b>NIRDPR</b>	National Institute of Rural Development and Panchayati Raj
<b>NRDC</b>	Natural Resources Defense Council
<b>OBC</b>	Other Backward Classes
<b>ORF</b>	Observer Research Foundation
<b>PMAY-U</b>	Pradhan Mantri Awas Yojana-Urban
<b>PMKSY</b>	Pradhan Mantri Krishi Sinchai Yojana
<b>PwD</b>	Persons with Disabilities
<b>RBI</b>	Reserve Bank of India
<b>RE</b>	Renewable Energy
<b>SC</b>	Scheduled Castes
<b>SCGJ</b>	Skill Council for Green Jobs
<b>SEWA</b>	Self-Employed Women's Association
<b>SHG</b>	Self Help Group
<b>SPDA</b>	Sustainable Projects Development Association
<b>SBI</b>	State Bank of India
<b>SSEF</b>	Shakti Sustainable Energy Foundation
<b>ST</b>	Scheduled Tribes
<b>STEM</b>	Science, Technology, Engineering and Mathematics
<b>TERI</b>	The Energy and Resources Institute
<b>ULB</b>	Urban Local Body
<b>UNDP</b>	United Nations Development Programme
<b>UNFPA</b>	United Nations Population Fund
<b>WOTR</b>	Watershed Organisation Trust

# Foreword

Gender equality and women's empowerment are essential features of sustainable development and inclusive economic growth. As committed partners under the United Nations 2030 Agenda, India and Germany recognise that advancing gender equality is both a fundamental right and a cornerstone of a just and prosperous future.

India and Germany have a long-standing partnership in sustainable development, climate action, and environmental cooperation. With 75 years of diplomatic ties and almost 70 years of development cooperation, our collaboration has evolved to address pressing global challenges. The Green and Sustainable Development Partnership (GSDP), established in 2022, strengthens our commitment to integrating sustainability and gender equality into our joint efforts.

In this endeavour, including gender-responsive policies as a cross-cutting aspect in development cooperation is critical. While both India and Germany have made significant strides in promoting gender equality, challenges persist across sectors, limiting women's access to resources, workforce participation, and representation in decision-making processes.

This study, titled 'Indo-German Solutions for Gender Equality and Women's Empowerment', explores gender initiatives across agroecology and food systems, sustainable urban development, and renewable energy. It highlights shared policy priorities and identifies opportunities for deeper collaboration. Key areas for future cooperation include strengthening women-led networks, enhancing skills development, and improving gender data collection to support evidence-based policymaking.

Germany remains dedicated to working with India to advance gender equality as part of our broader development goals. By leveraging our combined expertise and resources, we can create transformative solutions that empower women, reduce gender disparities, and build more equitable and resilient societies.

**Philipp Ackermann**

German Ambassador to India and Bhutan

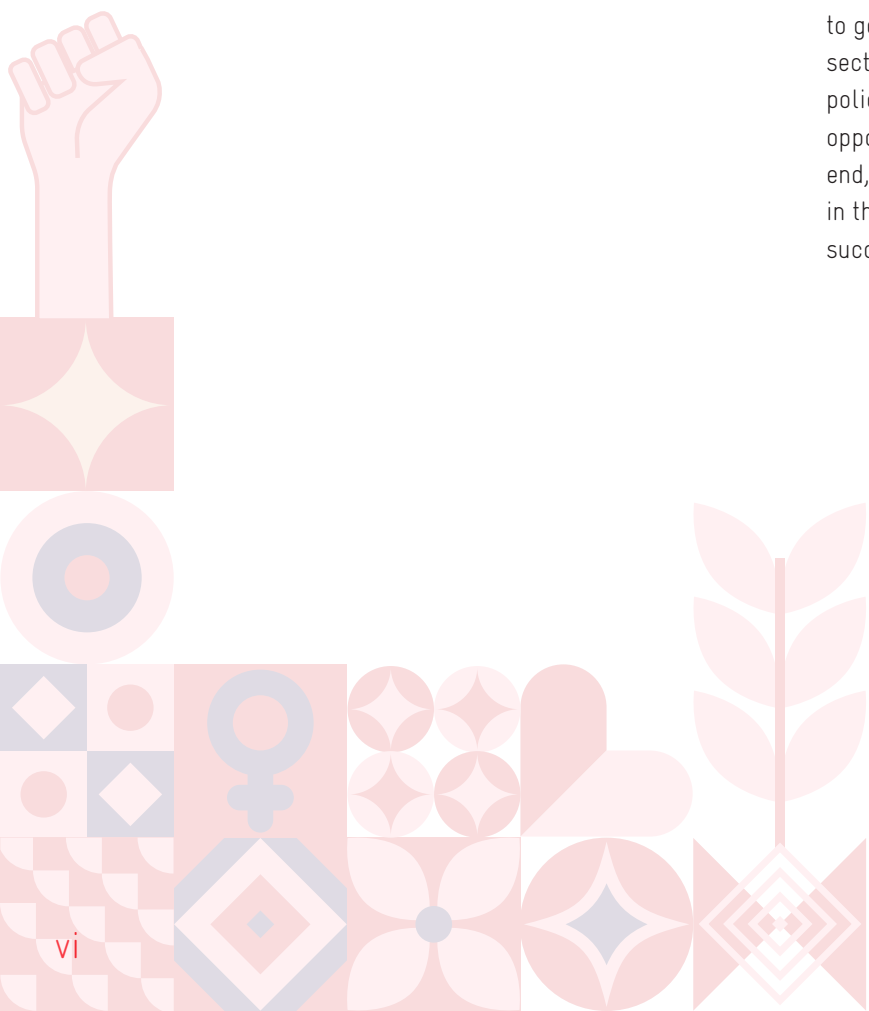


# Executive Summary

**Established in 2022, the Green and Sustainable Development Partnership (GSDP) serves as a framework for aligning Indo-German cooperation with the objectives of the United Nations Sustainable Development Goals (SDGs) and the Paris Climate Agreement. Under SDG 5 of the 2030 Agenda for Sustainable Development, countries commit to achieve gender equality and to empower all women and girls. Within the SDG framework, gender equality is understood not only as a fundamental human right but as a necessary precondition to attain a peaceful and sustainable world. Under the GSDP, both India and Germany recognise the importance of integrating gender-responsive policies in their development agendas.**

However, in spite of progress made in the area, gender disparities persist across sectors. Challenges such as restricted access to essential resources, limited workforce participation and insufficient representation in decision-making continue to hinder women's empowerment.

This study explores key gender equality and women's empowerment initiatives in India across three sectors relevant to the GSDP, namely agroecology and food systems, sustainable urban development and renewable energy. Additionally, it aims to identify opportunities for future Indo-German cooperation in these sectors to further advance gender equality objectives. In doing so, it seeks to answer three broad research questions- 1) What are India's key approaches to gender equality and women's empowerment in the agroecology and food systems, sustainable urban development and renewable energy sectors, 2) What are Germany's main approaches to gender equality and women's empowerment in these sectors in India, and 3) Where do India and Germany's policy priorities align, and what are the most promising opportunities for future bilateral cooperation? To this end, it analyses the policy and stakeholder landscapes in the afore-mentioned sectors and spotlights successful bilateral projects as best practice examples.



# Key Findings

The study highlights key areas of policy alignment between India and Germany in promoting gender equality and identifies opportunities for collaboration. Additionally, it provides sector-specific recommendations based on these findings.



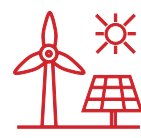
## Agroecology and Food Systems Sector

India and Germany share strong policy alignment on women's economic empowerment, financial inclusion and nutrition security in the agroecology and food systems sector. Both countries emphasise strengthening women-led networks to promote knowledge transfer and peer learning in the sector. The study furthermore identifies opportunities for deeper bilateral cooperation in knowledge exchange, research-driven implementation and digitalisation in agriculture.



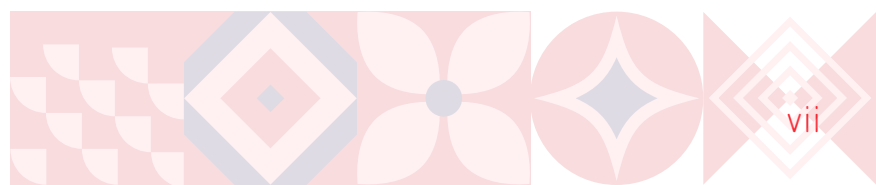
## Sustainable Urban Development Sector

India and Germany share key policy alignments in gender-responsive urban mobility and access to essential infrastructure such as water and sanitation. While Germany recognises affordable housing as a cooperation area under the GSDP, the study observes that the topic remains relatively underrepresented in strategic engagement, presenting an opportunity for deeper collaboration in the future. Both countries emphasise engaging non-government actors (e.g., community-led organizations, NGOs) to advance gender equality. Additionally, there is growing interest in strengthening gender-disaggregated data collection to enhance evidence-based policymaking and project implementation.

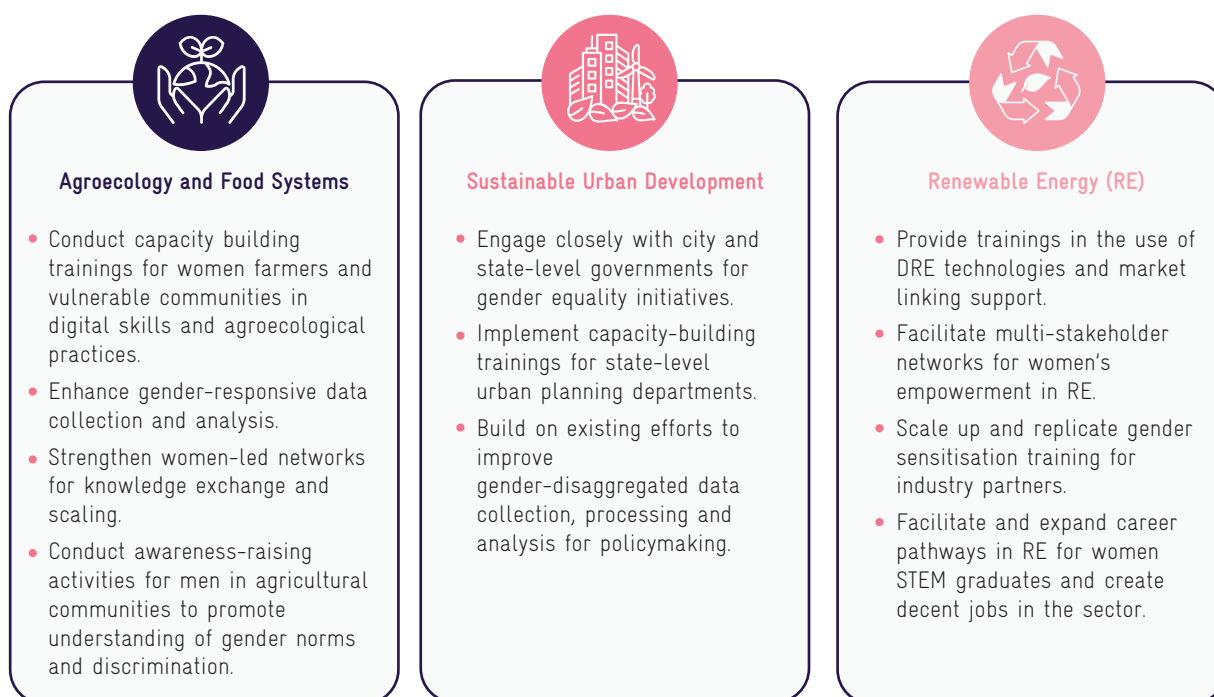


## Renewable Energy Sector

Despite the absence of formal gender-specific policies in India's renewable energy sector, both India and Germany align in their commitment to increasing women's employment in green jobs. However, challenges persist in bridging the gap between female Science, Technology, Engineering and Mathematics (STEM) graduates and technical roles. While India has initiated efforts to highlight women's contributions to renewable energy, further engagement is needed to enhance women's representation in the sector. Additionally, Decentralized Renewable Energy (DRE) technologies present significant opportunities to improve rural women's livelihoods, with German development cooperation (DC) well-positioned to support knowledge sharing and capacity-building initiatives in this regard.



Based on an analysis of policy and stakeholder landscapes, the study proposes the following sector-wise recommendations:



## Conclusion and Cross-Sectoral Recommendations

The analysis reveals strong alignment between India and Germany's approaches to gender equality across the three sectors. Crucial areas for cooperation include capacity building and skill development for women's economic empowerment, strengthening established women-led networks for project implementation (e.g., SHGs, community cadres, women's networks in RE), bridging the gender digital divide and building on efforts to strengthen gender-disaggregated data collection. In closing, the study offers the following cross-sectoral recommendations to enhance future collaboration:

- ➔ **Integrate gender equality objectives into India's existing socioeconomic development agendas:** To enhance alignment with India's national priorities and to strengthen stakeholder engagement, gender equality should be integrated into existing development frameworks (e.g., health, education, employment) rather than be treated as a separate issue.
- ➔ **Cultivate culturally sensitive styles of communication on gender equality:** To strengthen cooperation, stakeholders should collaboratively develop a shared language, establish agreed-upon gender-specific terminologies, and create a framework for discussing gender issues.

- ➔ **Leverage community cadres for implementation of gender initiatives:** To ensure effective and sustainable implementation of gender initiatives, Indian and German stakeholders should prioritise investment in and activation of community-based cadres as a 'fourth tier of government'.
- ➔ **Strengthen knowledge transfer on gender budgeting:** German DC actors can play a key role in raising awareness among Indian partners of how to access existing gender budgets. This includes sharing expertise on overcoming challenges in accessing these resources, for example, by developing a resource toolkit. Additionally, they can provide capacity-building trainings to government partners on gender-responsive budgeting.
- ➔ **Strengthen gender-disaggregated data systems for evidence-based decision-making:** To improve evidence-based policymaking and enhance the effectiveness of gender initiatives across sectors, future bilateral cooperation should prioritise the development of robust gender-responsive data systems.

# INTRODUCTION

The Green and Sustainable Development Partnership (GSDP), established in May 2022 between India and Germany, serves as a framework for aligning bilateral cooperation with the objectives of the United Nations Sustainable Development Goals (as outlined in Agenda 2030) and the Paris Climate Agreement.

Under this partnership, the two countries engage a wide range of actors including multilateral institutions, scientific communities, civil society and businesses, to meet climate and sustainability goals. Priority areas for bilateral cooperation include renewable energy, green mobility, sustainable urban development, climate change mitigation and adaptation, agroecology and natural resource management, biodiversity, forest landscape restoration and the circular economy. Within this larger framework, the GSDP Support Project, implemented by GIZ on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ), aims to provide support services to political partners in both governments that help in steering, monitoring, and further developing the GSDP. An additional task involves supporting communication regarding the partnership in national and international spheres. Commissioned by the GIZ Support Project, this study seeks to identify key points of alignment between India and Germany's approaches to integrate gender equality and women's empowerment in three sectors relevant to the GSDP, namely agroecology and food systems, sustainable urban development and renewable energy.

The Indian government's commitment to gender equality is reflected in several recent ministerial reports, press releases, partnerships and initiatives. Under India's presidency, the [G20 New Delhi Leaders' Declaration](#) pledged to close gender gaps and enhance women's economic and social well-being. Key areas of intervention identified in the report include addressing the gender digital divide, ensuring access to affordable and inclusive education, promoting nutrition and food security and improving women's participation in decision-making, especially in climate change mitigation and adaptation (Ministry of External Affairs, Government of India, 2023). Additionally, a gender working group was institutionalised with a primary focus on women's empowerment to support the G20 Women's Ministerial. At the same time, during its G20 presidency, the Indian government shifted

its approach to gender-based policy making from a 'women's development' to a 'women-led development' approach. A women-led development approach acknowledges the necessary linkages between women's empowerment and the achievement of developmental goals. In doing so, it rejects the notion of women being mere recipients of welfare and treats them instead as agents of their own empowerment. India's women-led development approach is reflected in various schemes and initiatives aimed at improving women's access to essential resources and services, increasing workforce participation, facilitating financial inclusion, addressing gender-based violence and so on.

The advancement of gender equality also constitutes a central and longstanding pillar of German development policy. Its commitment towards eliminating gender-based discrimination is evidenced in several major policy documents such as the Gender Action Plan, the BMZ's guidelines for bilateral financial and technical cooperation and the Feminist Development Policy.





Promoting intersectional, gender-transformative, postcolonial, anti-racist and human rights-based approaches, Germany's development policy framework underscores the importance of international alliances and partnerships with civil society to advocate for the interests of women and girls (Federal Ministry for Economic Cooperation and Development [BMZ], 2023a). To promote gender equality objectives, the German Federal Ministry for Economic Cooperation and Development (BMZ) focuses on the 3R's, namely rights, resources and representation. This entails securing equal rights for women and other disadvantaged groups, enabling their access to essential resources and promoting equal representation in decision-making (Federal Ministry for Economic Cooperation and Development [BMZ], 2023a). These principles are reflected in the Third Development Policy Action Plan on Gender Equality (2023 – 2027) (hereafter referred to as the Gender Action Plan) (which provides concrete implementation-based guidance on how to implement the 3Rs in various areas of German development cooperation (Federal Ministry for Economic Cooperation and Development [BMZ], 2023b). The German Government also specifically shapes Germany's development cooperation with Asia, as laid out in the BMZ Asia Strategy, which illustrates Germany's commitment

to work jointly with partners in the continent to tackle the most pressing transnational challenges of the day (Federal Ministry for Economic Cooperation and Development [BMZ], 2023c).

The overarching aim of this study is to showcase ongoing gender equality and women's empowerment initiatives in the afore-mentioned three sectors in India and to explore opportunities for bilateral cooperation to further enhance women's empowerment in them going forward. It is structured as follows:

- Chapter 1 outlines the design and methodological approach of the study.
- Chapter 2 presents sector-wise policy and stakeholder analyses and recommendations for future bilateral initiatives.
- Chapter 3 concludes the study by summarising its findings and outlining five cross-sectoral recommendations.
- The Annex contains the list of references and list of stakeholders interviewed.

# Study Design and Methodological Approach

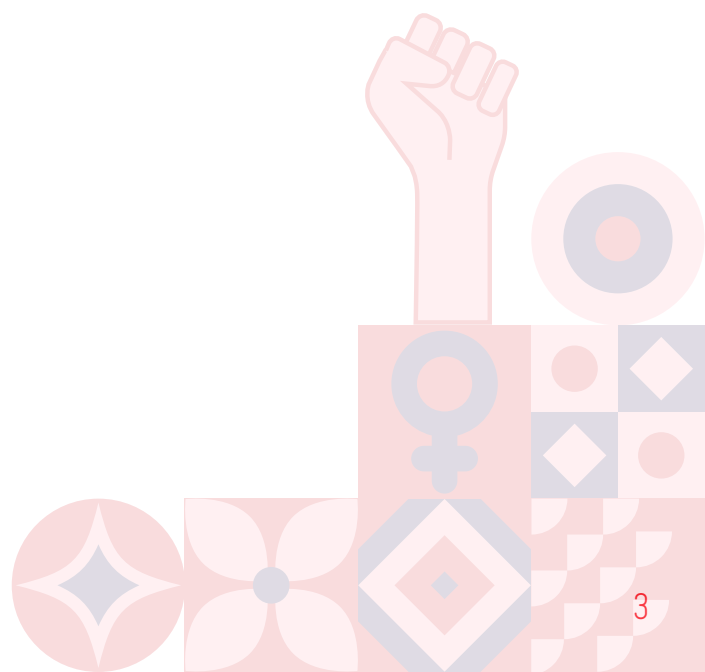
The study seeks to answer the following three research questions- 1) What are India's key approaches to gender equality and women's empowerment in the agroecology and food systems, sustainable urban development and renewable energy sectors? 2) What are Germany's main approaches to gender equality and women's empowerment in these sectors in India? 3) In what ways do India and Germany's policy priorities align and what are the most promising opportunities for future bilateral cooperation to advance gender equality in the three sectors? The analytical lens used to investigate policy priorities, and their alignment is grounded in both Germany's key policy frameworks as well as India's women-led development approach.

To gather insights on the policy and stakeholder landscape in each sector, the study team conducted a comprehensive secondary analysis of strategic documents and a series of semi-structured interviews with a wide range of actors. The study was implemented in three phases, namely the inception phase, the data collection and analysis phase and the synthesis and reporting phase.

The inception phase was launched with a kick-off workshop involving the GSDP Support Project team and the study team. The aim of this workshop was to establish a shared understanding of the study's objectives, clarify its contextual background and specify the details of the assignment. Additionally, it served as a platform to align on key milestones, coordinate communication pathways and ensure effective information sharing across teams. The kick-off workshop was followed by a preliminary review of the strategic framework of the project, which involved an analysis of key documents and data sources. The study team additionally conducted five exploratory interviews with members of the GSDP Support Project, GIZ portfolio team, gender focal points from relevant GIZ India projects and clusters and KfW. These interviews helped further refine the study parameters and gather insights into the specific ambitions and priorities of key stakeholders. The findings from the preliminary document analysis and exploratory interviews

guided the development of a study outline and a draft questionnaire for stakeholder interviews. Simultaneously, in consultation with the GSDP Support Project team, the study team compiled a provisional list of documents for review and identified potential interview partners to be engaged in the next phase of the study. The conclusion of the inception phase was marked by an inception workshop, where the study outline and draft questionnaire were presented to the GSDP Support Project team for review. Feedback gathered during this session was used to finalise these documents.

The main aims of the data collection and analysis phase were to conduct a policy and stakeholder analysis for each sector and to formulate a set of strategic recommendations for future bilateral cooperation. This involved a systematic secondary analysis of policy documents detailing women's empowerment initiatives in the agroecology and food systems, sustainable urban development and renewable energy sectors along with key German policy frameworks like the BMZ Asia Strategy, the BMZ Gender Action Plan and Germany's Feminist Development Policy.

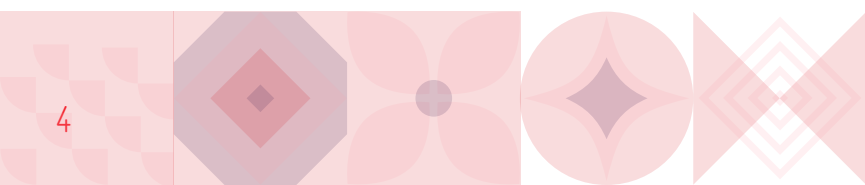


The desk review also contributed to mapping key actors in these sectors, identifying existing and potential areas of collaboration and synergy among stakeholders. In preparation for the stakeholder interviews, a focus group discussion was organised with GIZ focal points across the relevant clusters. This discussion was used to validate the study team's preliminary insights into the status quo of gender initiatives in the three sectors, and to deepen their understanding of existing opportunities and challenges before the stakeholder interviews. 19 stakeholder interviews were conducted in total, 9 of which took place on-site in New Delhi and the other 10 remotely. The on-site interviews were conducted with Indian government partners from various ministries (see Annex for full list of interview partners), while the remote interviews engaged non-government stakeholders from Indian think tanks, intergovernmental organisations and academia. These interviews provided insights into the policy landscape and highlighted the distinct challenges that arise in the implementation of gender-focused projects across the sectors. Additionally, they enriched the stakeholder mapping exercise by offering valuable perspectives on the key actors essential for advancing women's empowerment objectives.

The synthesis and reporting phase aimed to consolidate, analyse and document the insights gathered during the previous phases of the study. Firstly, findings from the desk review, stakeholder interviews and focus group discussions were discussed in an internal synthesis workshop. To ensure the robustness and reliability of conclusions, the study results were analysed from multiple perspectives, incorporating inputs from Syspans team members and the local expert. Next, the triangulated findings from this workshop were presented to the GSDP Support Project team in a co-creative interim results workshop. This session served as a platform to review the study results, refine the proposed recommendations and articulate strategies to address identified gaps. The final results of the study are documented in this report.

Notably, the implementation of the study was subject to certain limitations that must be kept in mind while interpreting its results and recommendations. Firstly, although the Ministry of Women and Child Development (MoWCD) is largely responsible for implementing gender-focused initiatives and gender budgeting in India, the study team was unable to secure an interview with officials from the same. The study aimed to compensate for this gap by asking targeted questions to a diverse array of stakeholders and triangulated interview findings with a desk review of literature. However, the absence of perspectives from MoWCD limited the opportunity for the study team to gain valuable insights on the policy and stakeholder landscape of gender equality initiatives in the country. Secondly, civil society organisations (CSOs) were relatively underrepresented in the stakeholder interviews conducted in the data collection and analysis phase. Although several attempts were made to reach out to CSOs, the interview requests were either declined or went unanswered. The study team aimed to balance the perspectives of Indian government stakeholders with those from non-government entities like think tanks, intergovernmental organisations and academia. Nonetheless, it acknowledges the absence of some relevant CSO perspectives in its final results. To partially account for this gap, knowledge on CSOs and their role in the three sectors was sourced from interview data and documents.

With regards to scope, the aim of the study was not to conduct a complete portfolio analysis of gender-related projects in the three sectors or to present an exhaustive list of all stakeholders operating in them. Rather, it highlights as examples a handful of projects that operationalise Indian policy priorities and that were specifically spotlighted by interview partners as good practice gender-specific examples. Lastly, it is important to note that the recommendations offered in this study are not specific to either technical or financial cooperation projects. Nonetheless, they are more strongly informed by the perspectives of technical cooperation (GIZ) than financial cooperation (KfW).

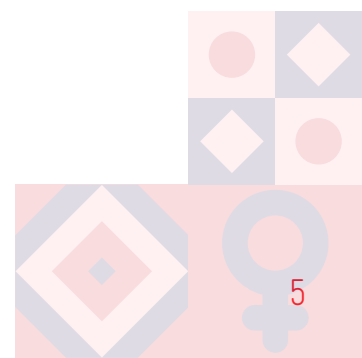


# Policy & Stakeholder Analysis



This chapter presents the analyses of the policy and stakeholder landscapes in the agroecology and food systems, sustainable urban development and renewable energy sectors.

Each section provides a sector-specific analysis and is structured as follows: Firstly, it provides an overview of Indian policy and priorities regarding gender equality and women's empowerment in the sector. This list of priorities is based on a desk review of relevant documents and insights from key stakeholder interviews conducted in the inception and data collection phases of the study. Secondly, it lays out German policy priorities in the sector vis-à-vis gender equality based on a secondary analysis of strategic documents and interviews with development cooperation (DC) actors from GIZ and BMZ. Finally, it explores how well Indian and German priorities regarding gender equality in the sector align. It does so by- 1) Highlighting policy intersections and opportunities, 2) Describing the stakeholder landscape, and 3) Identifying conclusions and strategic recommendations for future bilateral cooperation in the sector. Additionally, a successful project is spotlighted to provide inspiration and guidance for future interventions in the area.



## ✦ Sector Analysis: Agroecology and Food Systems

This section presents the results of the policy and stakeholder analysis of gender equality initiatives in the agroecology and food systems sector in India.

### ➔ Indian Policy Priorities

Based on a [secondary analysis](#) of policy documents and [key stakeholder interviews](#), the overarching policy priorities of India regarding women's empowerment in the sector include- 1) Fostering social mobilisation and institutional development, 2) Improving access to irrigation and water use efficiency, 3) Securing nutritional security for women and girls, and 4) Facilitating the economic empowerment of women. The remainder of this section elaborates upon these priorities and describes different schemes operating within them.

Social mobilisation and institutional development are recognised as essential drivers of socioeconomic empowerment for rural women in India.<sup>1</sup> Flagship programmes like the Deendayal Antyodaya Yojana-National Rural Livelihood Mission (DAY-NRLM), launched by the Ministry of Rural Development (MoRD), have mobilised more than 10 crore (100 million) rural women with the aim to improve livelihoods through employment promotion and poverty alleviation.

To do so, the programme has focused on building strong grassroots institutions like women-led Self Help Groups (SHGs), SHG federations and producer organisations to empower rural women and strengthen their claim to rights, entitlements and livelihood opportunities (Ministry of Rural Development, Government of India, n.d.-a). According to the [stakeholder interview](#) at MoRD, DAY-NRLM promoted the financial inclusion of impoverished rural women by linking its large network of SHGs to formal financial institutions, enabling members to access credit to sustain productive activities. SHGs have additionally been engaged through sustained capacity building initiatives and the identification and training of Community Resource Persons (CRPs) like Banking Sakhis and Pashu Sakhis, who act as multipliers and champion the causes being promoted.

The social mobilisation of rural women is closely aligned with the government's objective of economically empowering women in the sector. As described above, poverty alleviation programmes like the DAY-NRLM improve women's access to credit and promote income

generating activities. At the same time, the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) promotes workforce participation and economic empowerment of rural women by guaranteeing at least 100 days of employment in a year, including in the agricultural sector (Ministry of Rural Development, Government of India, n.d.-b). Furthermore, centrally sponsored schemes such as the National Food Security Mission (NFSM) support women's participation in agriculture by allocating a portion of funds to women beneficiaries, despite not being explicitly gender-focused. Aiming to increase the production of crops like wheat, rice and pulses, the NFSM, launched by the Ministry of Agriculture and Farmers' Welfare, supports and funds sustainable agricultural area expansion, productivity enhancement, job creation and improved farmer incomes (National Food Security Mission, 2018). To promote inclusivity, 30% of its total funds are designated for women beneficiaries.

Another key approach to advancing women's empowerment in the sector is through improved access to irrigation and increased water use efficiency. National missions like the Pradhan Mantri Krishi Sinchai Yojana (PMKSY) have increased farmland access to water by partially financing irrigation projects under the Accelerated Irrigation Benefits Programme (AIBP). Moreover, water use efficiency in farms has been enhanced under the Command Area Development & Water Management (CAD&WM) programme through the development of micro-irrigation infrastructure like sprinklers and drip systems. In addition to infrastructural support, water use efficiency in farms has been improved through capacity building trainings and farm demonstrations (Ministry of Jal Shakti, 2023). While not explicitly gender-focused, these interventions aim to enhance agricultural productivity and are therefore likely to have a significant positive impact on rural women, who make up the vast majority of the sector's workforce (NITI Aayog, 2022).

The [focus group discussion](#) with German DC actors emphasised that yet another key strategy for advancing gender equality in the agroecology and food systems

<sup>1</sup> The term 'social mobilisation' is commonly used in policy documents in the Indian context, primarily in reference to initiatives that improve people's social and economic situations. 'Institutional development' refers to the formation of formal and semi-formal institutions, for example, SHGs and producer organisations.

sector is the promotion of nutritional security. The Integrated Nutrition Support Programme, launched by the Ministry of Women and Child Development (MoWCD) and comprised of Saksham Anganwadi and Poshan 2.0, targets malnutrition in children, women and adolescent girls. It does so through a wide variety of interventions ranging from counselling and awareness-raising to providing supplementary nutrition support for children, pregnant and lactating mothers and adolescent girls in selected regions (Ministry of Women and Child Development, 2022). As an overarching aim, the programme seeks to cultivate and nurture good practices around health, wellness and immunity amongst its target groups.

In summary, India's approach to promoting gender equality in the agroecology and food systems sector is multifaceted, addressing key structural barriers faced by women and girls. Social mobilisation and institutional development serve as foundational strategies, with large-scale initiatives like DAY-NRLM fostering financial inclusion and strengthening grassroots organisations. Economic empowerment is furthermore supported through employment guarantees and dedicated funding allocations in agricultural schemes, ensuring greater participation of women in income-generating activities. Improving access to irrigation and enhancing water use efficiency contribute to increased agricultural productivity, indirectly benefiting the predominantly female workforce. Lastly, targeted nutrition programmes recognise the critical intersection of gender, health and food security by addressing the specific nutritional needs of women and girls. Together, these approaches form a multi-layered framework for advancing gender equality by enhancing women's economic agency, social inclusion and overall well-being in the sector.



## → German Policy Priorities

A secondary analysis of strategic documents and key stakeholder interviews with German DC actors highlight a set of German policy priorities concerning gender equality in the agroecology and food systems, namely- 1) Promoting sustainable and participatory resource management, 2) Improving access to land, water and finance, 3) Facilitating access to safe, adequate and balanced nutrition, and 4) Promoting sustainable livelihoods. This section elaborates on each priority area.

A key priority of German development policy in the agroecology and food systems sector is to empower women in sustainable and participatory resource management. The BMZ Asia Strategy identifies supporting women in the sustainable management of water, forests and soil as a central policy lever for development in the region (Federal Ministry for Economic Cooperation and Development [BMZ], 2023c).

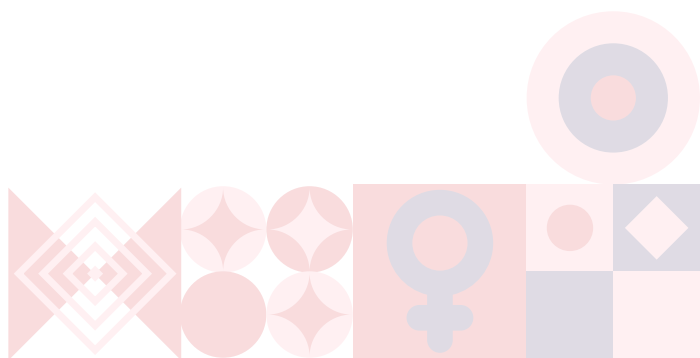
This is furthermore reflected in the GSDP, which highlights sustainable natural resource management as one of the key areas of cooperation between Indian and German partners. Germany's commitment to including women in participatory resource management is similarly emphasised in the Gender Action Plan (Federal Ministry for Economic Cooperation and Development [BMZ], 2023b). One of its main thematic priorities is enhancing women's representation in decision-making at all levels, particularly in the areas of food security, agriculture and rural development.

Another key priority of German policy in the agroecology sector is expanding women's access to land, water, and financial resources. The Gender Action Plan underscores Germany's commitment to ensuring equal rights in land ownership and inheritance while promoting greater transparency in land rights and management (Federal Ministry for Economic Cooperation and Development [BMZ], 2023b). It furthermore highlights efforts to enhance gender-equitable and climate-resilient access to water. Similarly, the plan outlines Germany's initiatives to improve women's access to formal credit and agricultural inputs, with a particular focus on smallholder women farmers. These efforts align with Germany's broader Feminist Development Policy, which seeks to strengthen women's access to formal financial systems and promote their economic empowerment (Federal Ministry for Economic Cooperation and Development [BMZ], 2023a).

Facilitating access to safe, adequate and balanced nutrition is another major German priority in the sector. Securing food and nutrition security is described as one of the main thematic priorities in the Gender Action Plan (Federal Ministry for Economic Cooperation and Development [BMZ], 2023b). To this end, the Feminist Development Policy highlights Germany's commitment to promote access to sufficient, safe and nutritious food, with special attention to the distinct nutritional needs of women, children and adolescents (Federal Ministry for Economic Cooperation and Development [BMZ], 2023a).

Finally, German development policy focuses on promoting sustainable livelihoods to empower women in the sector. The Feminist Development Policy outlines Germany's commitment to advocate for fair wages and decent work for women engaged in global supply chains (Federal Ministry for Economic Cooperation and Development [BMZ], 2023a). A key stakeholder interview with a German DC actor moreover highlighted the focus of development cooperation on promoting the economic empowerment of women farmers through targeted capacity building initiatives.

In conclusion, Germany's DC priorities in the agroecology and food systems sector in India are anchored in a commitment to advancing gender equality through four key policy priorities, namely promoting sustainable and participatory resource management, improving women's access to land, water and finance, ensuring access to safe and adequate nutrition and fostering sustainable livelihoods. These priorities reflect its broader motivation to enhance women's decision-making power, economic agency and access to critical resources. By promoting gender-responsive strategies across these areas, Germany aims to create more inclusive and resilient agroecology and food systems sector that not only empowers women but also contributes to broader sustainable development goals.



## → Aligning Priorities: Opportunities for Indo-German Cooperation on Gender Equality in the Agroecology and Food Systems Sector

This section draws on a [secondary analysis](#) of relevant literature and [key stakeholder interviews](#) to- i) Map alignments and potential areas of collaboration in Indian and German approaches based on an analysis of policy priorities presented in sections (a) and (b), ii) Present an overview of key stakeholders shaping the policy and implementation landscape, and iii) Propose strategic recommendations for enhancing bilateral cooperation.

### 1. Mapping Areas of Alignment and Opportunities for Cooperation

A comparison of Indian and German policy priorities on gender equality in the sector highlights several areas of alignment. Both countries place a strong emphasis on women's economic empowerment as a core objective in the agroecology and food systems sector. India advances this goal through employment guarantees (e.g., MGNREGA), enhanced access to credit (e.g., DAY-NRLM), and dedicated funding allocations to increase women's participation in income-generating activities (e.g., NFSM). These efforts align with Germany's policy focus on improving women's access to financial capital. Furthermore, both approaches align with the broader objectives of the 3R's framework, by enhancing women's access to essential resources (Federal Ministry for Economic Cooperation and Development [BMZ], 2023a).

Both partners also prioritise gender-responsive nutrition security as a key pillar of gender equality. India addresses this through large-scale nutrition programs, which focus on women, children and adolescent girls by providing supplementary nutrition support and awareness (e.g., Saksham Anganwadi and Poshan 2.0). Germany's policy priorities under the Gender Action Plan align with this goal by advocating for gender-responsive food security policies and ensuring women's access to safe and nutritious food (Federal Ministry for Economic Cooperation and Development [BMZ], 2023b).

Another area of policy alignment lies in the strengthening of women-led networks, particularly in areas such as natural resource management and nutritional security. In [interviews](#), both Indian government and German DC stakeholders highlighted

the role of SHGs and SHG federations in rural India as effective knowledge multipliers who can facilitate peer learning, promote sustainable practices and enhance social cohesion.

A [stakeholder interview](#) with the MoRD emphasised the importance of capacity-building, knowledge exchange, and research-driven implementation support from German partners. Key areas for potential bilateral cooperation include impact and gap analyses of ongoing Indian interventions and support in scaling successful projects within the agroecology and food systems sector. With regard to knowledge dissemination, the Moringa Toolkit, co-developed by the DAY-NRLM and GIZ, was highlighted as a model initiative. Designed to promote moringa-based livelihoods, the toolkit provides guidance on cultivation, value addition, and market linkages, enhancing income generation and nutritional security for rural communities (Deutsche Gesellschaft für Internationale Zusammenarbeit [GIZ], 2024). It was cited as an inspiration for future joint initiatives, underscoring the potential for similar knowledge products centred on specific agroecological sub-sectors to drive sustainable agricultural development.

[Focus group discussions](#) with German DC actors and [stakeholder interviews](#) with representatives from the MoRD and the Ministry of Environment, Forests and Climate Change (MoEFCC) highlighted the increasing importance of digitalisation in agricultural labour. German DC actors identified promising opportunities for future projects at the intersection of gender, agriculture and digitalization. At the same time, they emphasised the need to address the digital skills gender gap in rural areas. Empowering women farmers with digital skills is seen as essential for enabling them to adopt and benefit from emerging agricultural technologies like precision farming and agrivoltaics. On a more fundamental level, women often face barriers in accessing digital technologies like mobile phones and the internet, which in turn impacts their ability to participate effectively in the labour force. Joint initiatives between Indian and German DC partners can help address these gaps. Notably, Indian government stakeholders recommended that future bilateral cooperation could be strengthened through knowledge transfer from Germany, especially in the management, processing and utilisation of data collected during project implementation.

Lastly, a German DC actor called attention to the deepening interest among women farmers in the sector to adopt agroecological farming practices. These

methods, encompassing reduced tilling of land and elimination of chemically synthesised pesticides and fertilisers in addition to other solutions, can enhance food production and contribute to the creation of more sustainable agricultural and food systems. Knowledge transfer and capacity building trainings in these methods could be yet another promising avenue for future bilateral cooperation.

In summary, the comparison of Indian and German policy priorities on gender equality in the agroecology and food systems sector reveals strong alignment across several key areas. Both countries emphasise women's economic empowerment through financial inclusion and employment opportunities, with India's targeted schemes complementing Germany's focus on improving access to financial capital. Women's

nutrition security is another shared priority, with large-scale Indian nutrition programs aligning with Germany's policy advocacy for food security and access. Strengthening women-led networks is identified as a critical strategy by both Indian and German actors for facilitating peer learning and sustainable practices. Additionally, stakeholder discussions highlight opportunities for deeper bilateral cooperation, particularly in knowledge exchange and research-driven implementation. The role of digitalisation in agricultural labour and growing interest in agroecological farming among women farmers further underscore the potential for collaboration. Future bilateral initiatives that leverage these synergies can enhance gender equality while at the same time promoting a sustainable agroecological and food systems sector in India.



**Project term:** 2015–2025

**Partner:** MoWCD

**Gender Marker<sup>1</sup>:** GG1

# Securing Nutrition, Enhancing Resilience (SENU)

## → Project Overview

The project SENU, implemented by the GIZ and the MoWCD, is part of a Global Programme under the Special Initiative 'Transformation of Agricultural and Food Systems' (SI AGER) by the BMZ and is co-financed by the Bill & Melinda Gates Foundation (BMGF). It addresses nutritional challenges in rural Madhya Pradesh and Maharashtra. The project's objective is to ensure year-round access to and promote balanced, healthy nutrition, in particular for women and small children. In addition, it aims to support policymakers in enhancing food security, resilience, and evidence-based strategies to improve nutrition. To reach its goal, the project links nutrition trainings and paid work, by combining approaches of Social Behaviour Change (SBH), community engagement, and economic empowerment.

## → Gender Approaches

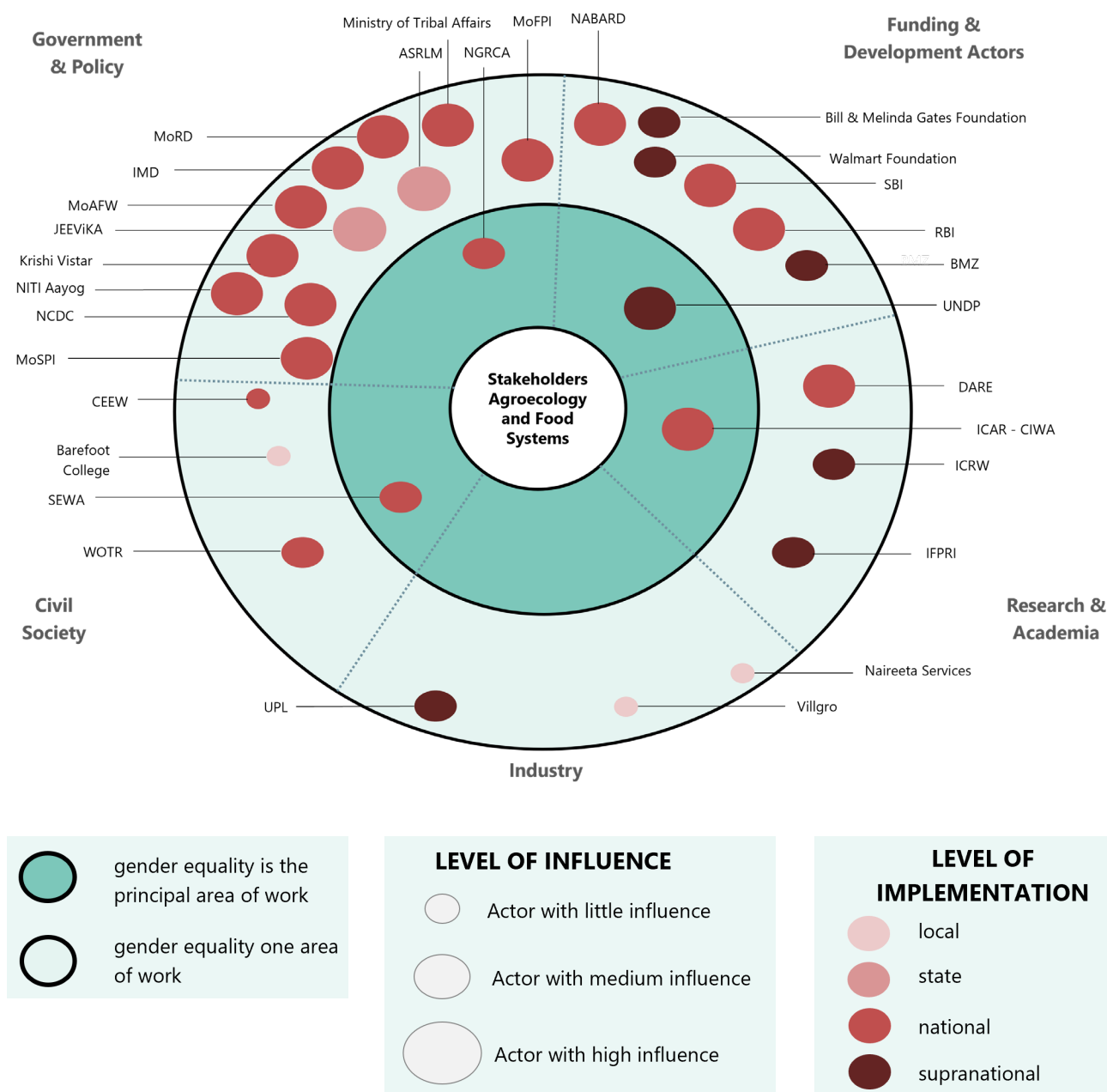
The gender transformative approaches employed by SENU are particularly noteworthy. At the forefront are activities aiming at changing attitudes and perceptions of gender roles and stereotypes on nutrition across individual, family, and community levels. This approach actively engages men in participatory activities such as nutrition education, reflections on the gendered division of (unpaid) work in the family, or a community street theatre campaign to promote positive masculinities, called #MenCare. The project's intersectional approach seeks to ensure the human right to safe and nutritious food for rural, landless, and indigenous women, while also addressing caste and tribal identities. This also includes a post-colonial perspective that respects local knowledge systems by integrating traditional agricultural practices like seed saving and natural pesticide use with modern nutritional science. In addition, SENU focuses on the empowerment

of women through enhanced agency and income generation. Based on a power-critical lens, it closely collaborates with Community Nutrition Gardens (CNGs)<sup>2</sup> managed by women SHGs. As a result, SHG members not only are recipients of increased wages, but recognized as active agents of change with enhanced bargaining and decision-making power. As part of its power-critical strategy, the SENU project has incorporated the Positive Deviance (PD) approach to discover uncommon gender-related practices among families, thus valuing community knowledge over expert solutions from outside.

## → Success Factors

The case of SENU illustrates how projects with a GG1 marker can effectively integrate gender-transformative approaches into their core strategy and thus catalyse significant shifts in gender relations and societal structures. As a key success factor, the project has secured stakeholder buy-in by effectively leveraging resources from an existing government scheme to support and systematically scale women-led CNGs. However, a main hurdle was a lack of common understanding regarding gender-transformative approaches among Indian and German partners. SENU overcame this challenge through three key strategies. First, it prioritized continuous gender competency development across all levels, which cultivated shared commitment, particularly from government partners. Second, the project innovatively engaged with men (specifically men considered as household heads / family fathers) as well as influential norm holders (traditional leaders, agricultural and health extension workers, local authorities, etc.) to implement a data-driven SBH strategy. These approaches collectively contributed to the project's success in transforming gender dynamics and improving nutritional outcomes.

## 2. Stakeholder Landscape: Agroecology and Food Systems



The landscape of stakeholders working at the intersection of gender with agroecology and food systems in India is characterised by strong structures of rural community organisation that have evolved over many decades (FAO, 2018).

Development cooperation efforts in agroecology and food systems can largely build on existing grassroots structures such as women’s SHGs, which have emerged as pivotal change agents in India’s agroecological landscape. These groups, whose role has gained significant recognition under MoRD’s National Rural Livelihood Mission (NRLM), serve as platforms for women farmers who perform a large proportion of

the agricultural work in India. Their close links with village communities enable them to promote livelihood improvement and agroecological practices by providing structures for capacity development and financial support. A prominent actor in this landscape is the Self-Employed Women’s Association (SEWA), which has facilitated the creation of thousands of SHGs since the 1990s and plays a key role in providing financial access to rural women (FAO, 2018). As such, SEWA and SHGs already serve as a vital link for international development cooperation efforts in the field of rural development and natural resource management, as noted by a BMZ interview partner.



Apart from the MoRD together with the NRLM, government actors also play a crucial role in supporting SHGs at the state level, particularly through initiatives such as the Bihar Rural Livelihoods Promotion Society (JEEViKA) (WBG, 2020) and the Assam State Rural Livelihoods Mission (ASRLM) (ASOMI, n.d.). By channelling resources and providing technical support, these state-level rural livelihood missions serve as crucial intermediaries to implement government policies such as the NRLM at the local level (Vutukuru et. Al, 2018).

In terms of mobilising resources, the donor landscape in the agroecology and food systems sector is marked by a comparatively high presence of national financial institutions committed to promoting gender equality (notably the National Bank for Agriculture and Rural Development (NABARD), the Reserve Bank of India (RBI), and the State Bank of India (SBI)). These actors play a pivotal role in the implementation of national schemes aimed at rural women's empowerment by enabling access to credit for women organised in SHGs (NABARD, n.d.; MoRD, 2023). NABARD, for example, has collaborated with international donors such as the World Bank, UN-organisations (like UNDP), and BMZ (as in GIZ's ProSoil project). According to an interview with BMZ, the bank might be a relevant cooperation actor for further integrating gender-transformative approaches at the local level.

Furthermore, the stakeholder landscape also reveals opportunities for collaboration in the field of gender data collection. As mentioned previously, there is a strong demand among Indian partners for international donor support with the collection and use of gender data. While the stakeholder landscape for advancing the closure of gender data gaps is limited, a few research institutes (e.g, the Department of Agricultural Research and Education (DARE) and the International Food Policy Research Institute (IFPRI)) include work on gender issues in agriculture. In particular, the Indian Council of Agricultural Research – Central Institute for Women in Agriculture (ICAR-CIWA) as well as the International Center for Research on Women (ICRW) conduct gender-focused research in order to develop gender disaggregated data bases on issues such as the role of women in different agricultural sectors.

In conclusion, the analysis of the stakeholder landscape shows that development cooperation on agroecology and food systems can build on vibrant rural community structures as well as a diverse set of national stakeholders already working on women's empowerment, even if they don't focus their activities exclusively on this issue.

### 3. Conclusion and Strategic Recommendations for Future Cooperation

Based on an [analysis of the policy landscape](#) and insights from [key stakeholder interviews](#), the study finds that there are substantive areas of alignment between India and Germany in their approaches to promoting gender equality in the agroecology and food systems sector. Both countries emphasise women's economic empowerment and financial inclusion as key drivers of gender equality, while advocating for women's rights and access to critical resources such as land and water. Additionally, they recognise nutrition security as a vital pathway for empowering women. Interviews with Indian and German stakeholders highlight a shared commitment to pursue gender equality in the sector through bilateral cooperation, particularly in areas like digitalisation and improved data collection systems. Moreover, across the sector, collaborating with women-led collectives is highlighted as a promising avenue for replicating and scaling interventions. The remainder of this section outlines the most promising areas for future joint initiatives. It is important to note that the sector-specific recommendations presented here are not exhaustive. Rather, they represent a targeted selection of suggestions based on priorities identified by stakeholders from both India and Germany and the feasibility of implementation within German DC.



#### Capacity Building for Women Farmers in Digital Skills and Agroecological Practices

The study finds that digitalisation is becoming increasingly relevant in agriculture, but the digital gender gap remains a major barrier for participation for rural women. In the future, German DC partners should design and implement digital literacy programmes targeted specifically at women farmers to enhance their adoption of digital tools, mobile-based market platforms, and new agroecological technologies. They should moreover support Indian partners in the implementation of agroecological training programmes that incorporate climate-smart farming techniques and that enable women farmers and vulnerable agricultural communities to engage in sustainable and resilient agriculture. The extensive network of women-led SHGs mobilized under schemes like DAY-NRLM can be activated for such capacity-building initiatives. More broadly, German partners should spearhead joint R&D initiatives to develop gender-sensitive agricultural technologies tailored to the distinct needs of women farmers in India.



#### Enhance Gender-Responsive Data Collection and Analysis

There is a significant lack of gender-disaggregated data in the agroecology and food systems sector, limiting the ability of policymakers to design targeted interventions. The study moreover finds that there is appreciation from both Indian and German sides that data-driven policymaking can help identify gaps in women's participation, access to resources and productivity in agriculture. In the future, the study recommends establishing Indo-German research collaborations to systematically collect, analyse and utilize gender-disaggregated data in agriculture and food systems. Research institutions like DARE, IFPRI and ICAR-CIWI, ICRW can be engaged for such collaborations (See: Stakeholder Landscape). Other institutions that can be engaged for such collaborations include universities (e.g., IIMs), international organisations (e.g., Bill and Melinda Gates Foundation (BMGF) and government partners like the Ministry of Statistics and Programme Implementation. These institutions and similar actors could moreover be supported in developing data-driven decision-making tools and systems that can be used by policymakers to design more inclusive agricultural policies.



#### Strengthen Women-Led Networks for Knowledge Exchange and Scaling

The study finds that the extensive network of SHGs in rural India can be a key resource in the implementation of gender equality initiatives. Women-led networks, including community cadres and farming collectives, are seen by Indian and German stakeholders alike to play a critical role in areas like natural resource management and nutrition security. Specifically, these networks can serve as multipliers for knowledge transfer, contributing to peer learning, capacity-building, and stronger social cohesion within rural communities. The study finds great potential for future bilateral cooperation in fostering joint programs that strengthen and expand these women-led networks, ensuring their active role in implementing and scaling agroecology initiatives. This would require an assessment of distinct needs of these networks to determine the kind of support that could be provided. Additionally, German partners should provide technical support to women-led producer organizations to enhance their market access and economic resilience. In line with its ambition to promote decent work, German DC partners could also look into developing joint initiatives with India to promote fair wages and labour rights in agricultural

supply chains. Finally, German DC partners should facilitate peer learning exchanges between Indian and German women-led initiatives to enable the sharing of best practices in sustainable agriculture.



### Awareness-Raising Activities on Gender Equality for Men in Agricultural Communities

Transforming attitudes around gender roles and stereotypes are necessary precursors for advancing gender equality in the agroecology and food systems sector. To this end, all members of agricultural communities, including men, should be involved in affecting widespread change. The study suggests engaging closely with farming communities, particularly male agricultural workers, on the topic of women's empowerment. Public campaigns and awareness-raising events can encourage men to critically examine traditional gender roles, norms and customs that contribute to women's disempowerment in agricultural communities. These initiatives can also foster collective efforts to identify and implement solutions that reduce gender-based disadvantages.



The study finds that there are substantive areas of alignment between India and Germany in their approaches to promoting gender equality in the agroecology and food systems sector. Both countries emphasise women's economic empowerment and financial inclusion as key drivers of gender equality, while advocating for women's rights and access to critical resources such as land and water.



## ✦ Sector Analysis: Sustainable Urban Development

This section presents the findings of the policy and stakeholder analysis on gender equality initiatives within India's sustainable urban development sector.

### ➔ Indian Policy Priorities

A secondary analysis of policy documents and insights from key stakeholder interviews reveal the following overarching priorities of the Indian government regarding gender inequality in the sustainable urban development sector: 1) Securing affordable forms of housing with a priority focus on women and other minority/vulnerable groups, 2) Improving access to essential goods and urban infrastructure, and 3) Facilitating safe and inclusive mobility. Notably, in the focus group discussion, German DC stakeholders stressed that awareness regarding gender issues in urban development is rising across the country. The ensuing section elaborates on the key priority areas and provides examples of projects operating within them.

Ensuring access to affordable housing is a key priority in sustainable urban development. Within this overarching goal, the Indian government has implemented various schemes aimed at enhancing women's access to low-cost housing. The Pradhan Mantri Awas Yojana-Urban (PMAY-U), a national flagship mission implemented by the Ministry of Housing and Urban Affairs (MoHUA) between 2015 and 2024, supported states and Union Territories (UTs) in providing housing to a wide range of stakeholders including slum dwellers, economically vulnerable populations and middle-income groups in urban areas (Ministry of Housing and Urban Affairs, n.d.). The mission prioritised housing access for minority groups like women, trans\*persons, persons with disabilities (PwD) and members of Scheduled Castes, Scheduled Tribes and Other Backward Classes (SC, ST and OBCs). Furthermore, houses obtained under the PMAY-U are registered either under the name of an adult female member of the family or under the joint name of spouses. Another example is the Sakhi Niwas scheme under Mission Shakti<sup>2</sup>, which provides safe, conveniently located and affordable accommodation to working women and women looking to join the workforce.

As per reports from states and UTs, there were 523 functional Sakhi Niwas hostels in the country by the end of 2024 (Ministry of Women and Child Development, n.d.). As mentioned in the focus group discussion with GIZ

actors, the scheme also provides daycare facilities for the children of working mothers residing in the Sakhi Niwas hostels.

Another key priority of the Indian government in sustainable urban development is to enhance access to essential goods and urban infrastructure. Within this broader framework, various schemes and missions implement specific measures to promote gender-equitable access to vital resources and services. For instance, the Atal Mission for Rejuvenation and Urban Transformation 2.0 (AMRUT 2.0) is a nationwide scheme launched in 2021 by MoHUA with the overarching aim of promoting sustainable water management and 100% coverage in sewerage management in cities. Under this larger scheme, the AMRUT Mitra initiative aims to leverage women-led urban SHGs to foster skills in water management and to promote women's ownership over urban water infrastructure. Activities under this initiative include training women in skills necessary for the management of urban drinking water supply, fostering ownership and responsibility of women towards the maintenance and sustainability of urban water infrastructure, promoting community awareness regarding water conservation etc. Similarly, the Swachh Bharat Mission, a country-wide campaign initiated by the Indian government in 2014, has inclusive sanitation as one of its key focus areas. Under this mission, the construction of safe and accessible women-friendly toilets is seen as an enabler of gender equality by helping women navigate public spaces with comfort and confidence (Press Information Bureau, Government of India, 2024).

An additional focus area of the Indian government in the sector is ensuring safe and inclusive mobility for women in urban areas. Numerous schemes have been introduced over the years to encourage women's use of public transport. For example, the Delhi Metro has allocated women-only coaches to provide exclusive and safe spaces for women commuters. What's more, several states in the country offer free travel for women in state-run buses under the Shakti initiative (e.g., Karnataka, Telangana, Tamil Nadu, Punjab). Through the Nirbhaya Fund, allocated by the Ministry of Home Affairs (MHA), various initiatives have been introduced to

2 Mission Shakti is an umbrella mission headed by the Ministry of Women and Child Development implementing interventions for women's safety, security and empowerment. It is comprised of two verticals: Sambal (focusing on the safety and security of women through schemes like Beti Bachao Beti Padhao and One Stop Centres) and Samarthya (focusing on the empowerment of women through schemes like Sakhi Niwas and Pradhan Mantri Matru Vandana Yojana).

improve women's safety in public transportation. While some of these measures are implemented nationwide, others are tailored to specific states and UTs. Examples include the installation of video surveillance systems at train stations, the expansion of a universal women's helpline and the integration of panic buttons in both public and private transport vehicles like buses and taxis (Press Information Bureau, Government of India, 2022). Additionally, the Smart Cities Mission, launched in 2015 by MoHUA, integrates women's safety as a key component of its overarching goal to develop core infrastructure and enhance urban living standards (Ministry of Housing and Urban Affairs, 2015). Under this mission, Integrated Command and Control Centres (ICCCs) have been established, which allow cities to use real-time data from field devices like CCTV cameras and emergency call boxes to prevent, detect and address crimes, including those against women and girls (Ministry of Housing and Urban Affairs, 2024). Furthermore, efforts to enhance first- and last-mile connectivity, such as the provision of well-lit and paved footpaths and the availability of safe intermediate public transport, aim to improve both the safety and accessibility of urban transportation for women (Ministry of Housing and Urban Affairs, 2024).

To summarise, the Indian government takes a multi-pronged approach to address gender inequality in sustainable urban development. Its key priority areas include affordable housing, access to essential goods and urban infrastructure, and safe and inclusive mobility. Various national and state-level initiatives aim to improve women's housing security, facilitate access to safe public transport and promote gender-sensitive urban planning. Together, these measures highlight the government's commitment to fostering gender equity in urban development by creating safer, more inclusive and accessible cities for women and marginalised groups.

## ➔ German Policy Priorities

A secondary analysis of policy documents and key stakeholder interviews with German DC actors reveal several German policy priorities concerning gender equality in the sustainable urban development sector in India. These include- 1) Advancing women's representation in urban development and planning, 2) Expanding access to housing and basic urban infrastructure and services, and 3) Promoting gender-inclusive mobility. The following section elaborates on these priorities.

According to the Gender Action Plan, one of the key focal points of German policy in the sector

is to advocate for the adequate representation of women and Indigenous Peoples in urban design and planning (Federal Ministry for Economic Cooperation and Development [BMZ], 2023b). This was moreover confirmed by a key stakeholder interview with a German DC actor, who highlighted Germany policy interests in increasing the representation of women in areas like transportation, services and project planning more generally. The higher the representation of women in decision-making roles, the more likely it is that gender-specific needs and interests are reflected in development plans. This aligns closely with the objective described in the BMZ Asia Strategy to support an integrated urban development that promotes gender quality in addition to being socially, environmentally and economically sustainable (Federal Ministry for Economic Cooperation and Development [BMZ], 2023c). Furthermore, this focus supports Germany's broader commitment under the Feminist Development Policy to advance gender equality by strengthening women's participation in decision-making processes (Federal Ministry for Economic Cooperation and Development [BMZ], 2023a).

The second major priority of German policy in the sustainable urban development sector is to improve women's access to basic urban infrastructure and services. Under the GSDP, the German government has committed to jointly enhance access to basic infrastructure, dedicating special attention to women, children, the elderly and PwD (India-Germany Green and Sustainable Development Partnership [GSDP], n.d.). Additionally, the BMZ Asia Strategy underscores Germany's goal of promoting inclusive access to essential urban services such as water, sanitation, and waste management (Federal Ministry for Economic Cooperation and Development [BMZ], 2023c). This in turn aligns with the Gender Action Plan, which reaffirms Germany's commitment to advocating for equitable and inclusive access to essential services, including water, sanitation and hygiene (Federal Ministry for Economic Cooperation and Development [BMZ], 2023b).

Lastly, Germany advances gender equality in India's sustainable urban development sector by promoting accessible and gender-inclusive mobility. Through the Partnership for Green Urban Mobility, it collaborates with Indian partners to expand and enhance local public transport systems (Federal Foreign Office, 2024). This approach aligns with Germany's broader commitment to fostering inclusive and gender-responsive transportation solutions, as outlined in the Asia Strategy (Federal Ministry for Economic

Cooperation and Development [BMZ], 2023c) and the Gender Action Plan (Federal Ministry for Economic Cooperation and Development [BMZ], 2023b). In 2024, the two countries signed a Joint Declaration of Intent to renew and further enhance their collaboration in promoting sustainable urban mobility in India through the Partnership for Green Urban Mobility.

In summary, Germany's approach to gender equality in India's sustainable urban development sector focuses on three main priorities: increasing women's involvement in urban planning, improving access to housing and basic services and ensuring safe and inclusive transportation. These priorities jointly reflect a diversified approach that integrates gender considerations into different aspects of urban development to foster more inclusive and sustainable cities.

## → **Aligning Priorities: Opportunities for Indo-German Cooperation on Gender Equality in the Sustainable Urban Development Sector**

This section builds on a [secondary analysis](#) of relevant literature and [key stakeholder interviews](#) to- 1) Identify areas of alignment and opportunities for collaboration between India and Germany in the sustainable urban development sector based on the policy priorities outlined in Chapters 2.1 and 2.2, 2) Provide an overview of key stakeholders influencing policy development and implementation, and 3) Offer strategic recommendations to strengthen bilateral cooperation.

### **1. Mapping Areas of Alignment and Opportunities for Cooperation**

A comparison of Indian and German policy priorities on gender equality in sustainable urban development reveals two broad areas of alignment. Firstly, both partners emphasise gender-inclusive mobility as a central objective. The Indian government addresses this goal by implementing initiatives aimed at improving women's access to modes of public transportation (e.g., free tickets for women travellers under the Shakti initiative, allocation of women-only coaches in the Delhi metro) and enhancing their safety (e.g., through projects under the Nirbhaya fund). This approach aligns closely with Germany's commitment to fostering accessible and gender-responsive urban mobility as outlined in key policy frameworks like the Asia Strategy and the Gender Action Plan (Federal Ministry for Economic Cooperation and Development [BMZ], 2023c; Federal

Ministry for Economic Cooperation and Development [BMZ], 2023b). In a [stakeholder interview](#), a German DC actor emphasised the strong interest of Indian partners in collaborating on gender-focused initiatives in the mobility sector. This was further reinforced by insights from the [focus group discussion](#) with other German DC actors, who noted that Indian partners widely recognize inclusive and safe mobility as a crucial factor in enabling women's workforce participation and their broader contribution to the national economy.

Secondly, both countries prioritise improving women's access to essential urban infrastructure. In this regard, the Indian government has implemented several nationwide schemes to provide safe and affordable accommodation to women, whether in the form of loans to facilitate home ownership (e.g., PMAY-U) or hostels for working women (e.g., Sakhi Niwas). Additionally, it has promoted gender-equitable access to essential services like water management (e.g., AMRUT Mitra) and sanitation (e.g., Swachh Bharat Mission). These efforts align with Germany's broader policy objectives, which are geared towards enhancing women's access to basic services and urban infrastructure (Federal Ministry for Economic Cooperation and Development [BMZ], 2023c; Federal Ministry for Economic Cooperation and Development [BMZ], 2023b). Notably, the study finds that although the GSDP posits adequate and affordable housing as a priority area for bilateral cooperation, the topic is relatively underrepresented in German strategic approaches vis-à-vis women's empowerment in India. To this end, the study identifies affordable housing and accommodation as a promising area to strengthen future collaboration between the two countries.

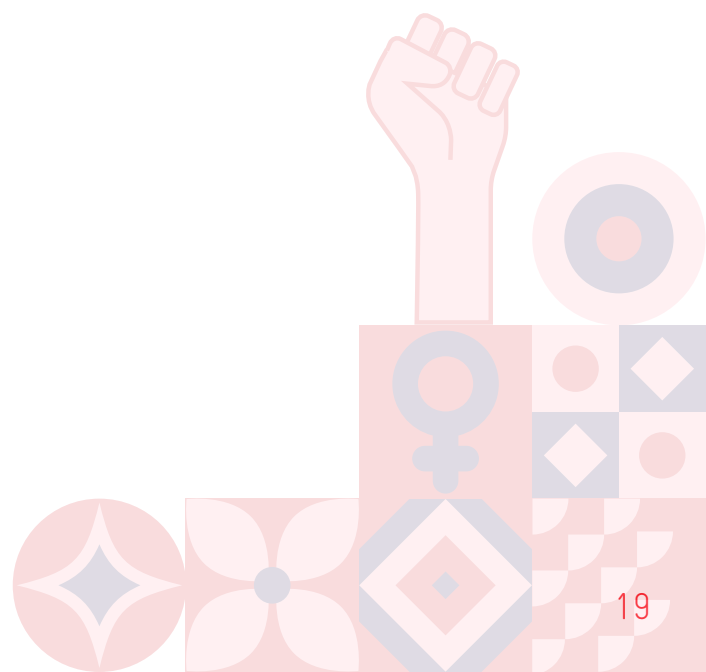
In key [interviews](#), both Indian and German stakeholders stressed on the importance of also collaborating with non-government partners in India to advance gender equality goals in urban communities. Engagement with the 'fourth tier of government' or women-led community cadres (e.g., Residence Welfare Associations, Slum Dwellers Associations) was highlighted as a prominent course of action. Additionally, a German DC actor noted the potential of collaborating with Indian Non-Governmental Organisations (NGOs) on a local level for the implementation of grassroots initiatives like bicycle cooperatives and community kitchens.

Finally, both partners have shown interest in strengthening collaboration on gender-disaggregated data collection in the future. Insights from [stakeholder interviews](#) and the [focus group discussion](#) with

German DC actors highlighted a strong awareness among Indian partners, including at the city level, about the significance of such data collection and the opportunities it presents for joint initiatives.

To conclude, comparing Indian and German policy priorities on gender equality in the sector highlights several areas of alignment, which offer a strong foundation for future collaboration. Both countries prioritise improving access to safe and inclusive forms of urban mobility, with India implementing targeted initiatives to enhance women's access to and safety in public transportation. This aligns closely with Germany's commitment to gender-responsive urban mobility. Similarly, both partners emphasise the importance of improving women's access to essential urban infrastructure, including housing, water, and sanitation services. While Germany recognises adequate and affordable housing as a key area for cooperation under the GSDP, this topic remains relatively underrepresented in its strategic approaches, presenting an opportunity for deeper collaboration. Additionally,

stakeholders from both countries underscore the value of engaging non-government actors, such as community-led organizations and NGOs, to advance gender equality initiatives at the local level. Lastly, there is growing interest in strengthening cooperation on gender-disaggregated data collection, which could enhance evidence-based policymaking and project implementation. By leveraging these synergies, Indo-German cooperation can drive more inclusive and sustainable urban development outcomes.



**Project term:** 2022-2025

**Partner:** MoHUA

**Gender Marker<sup>1</sup>:** GG2

## Smart Cities II (SUD-SC II)

### → Project Overview

The GIZ project SUD-SC II focuses on resilient and climate-friendly urban development in the states of Assam, Karnataka, Kerala, Odisha, Tamil Nadu and Telangana. The project's objective is to support Indian institutions with the application of risk-informed, integrated, resilient and futureproof urban development approaches that integrate the Leave No One Behind principle of the Agenda 2030. To reach its goal, the project provides policy support and capacity development for relevant actors and institutions, as well as support with data-driven decision-making and knowledge exchange.

### → Gender Approaches

Notably, SUD-SC II, which initially held a Gender Marker GG1, has now advanced to GG2, due to its strong focus on women and marginalised groups. Based on human rights-based and intersectional principles, the SUD-SC II supports women from particularly disadvantaged communities in local governance, strengthening women-led development. The project has introduced several gender-responsive measures to enhance women's access to resources and their representation, particularly in the states of Odisha and Kerala.

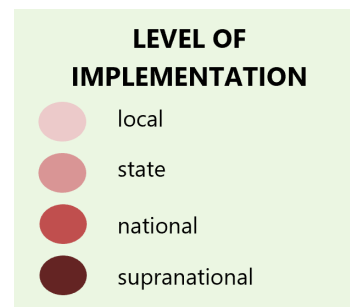
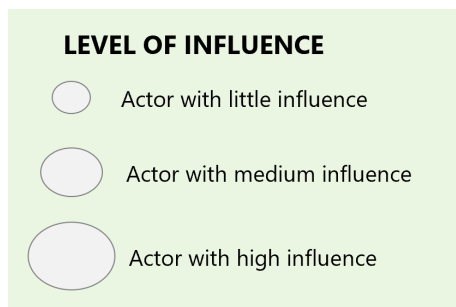
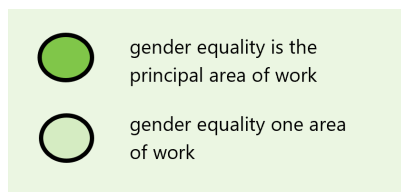
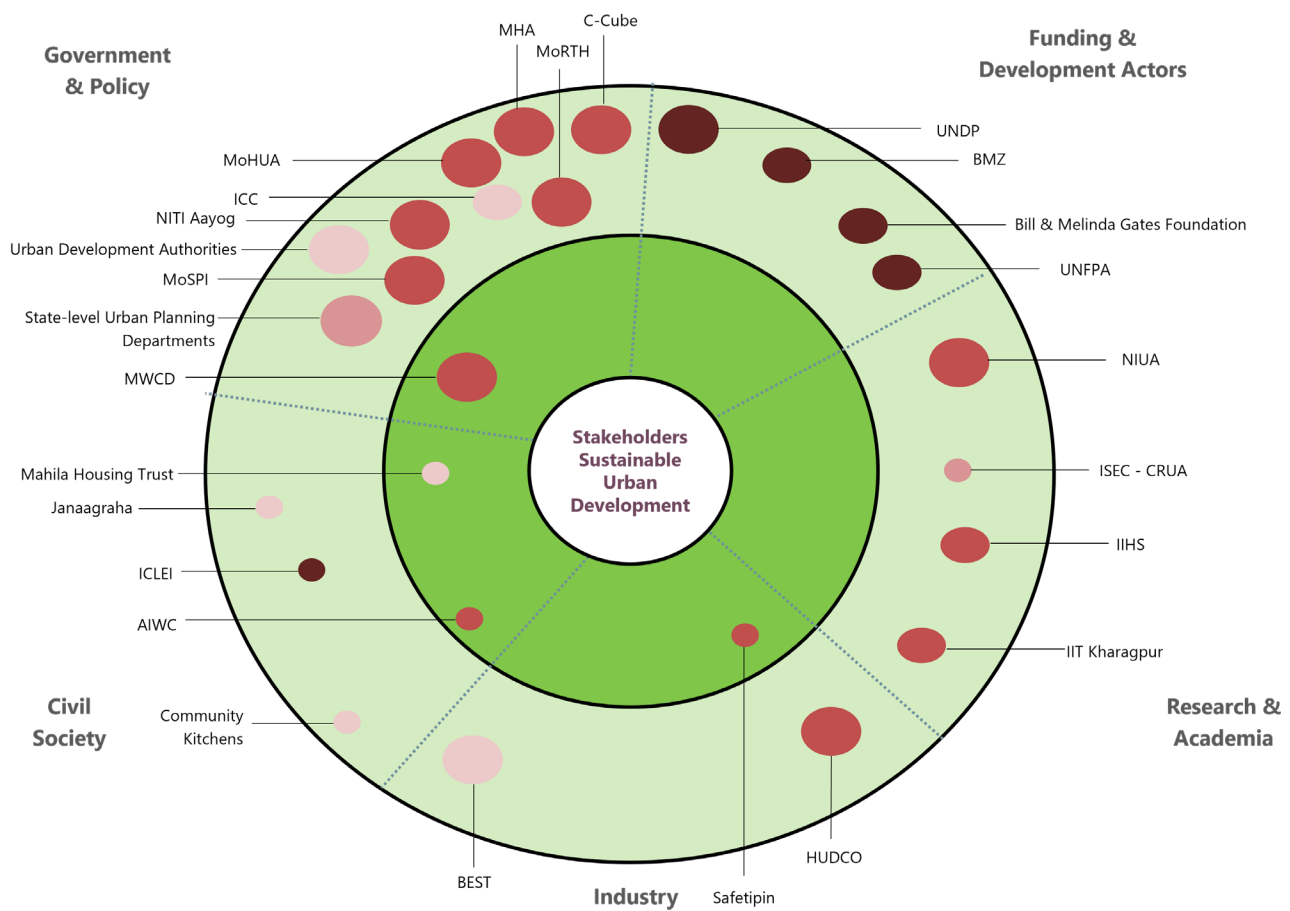
One key approach is the training of women SHG members to become so-called 'Jalasathis' in Odisha. These women are responsible for tasks such as water supply management, billing, payment collection, and water quality monitoring. By equipping them with these skills, the project fosters participatory governance and enhances women's economic empowerment in a male dominated sector. Additionally, and based on a power-critical perspective, the project strengthens the capacities of Slum Dwellers Associations (out of which at least 50% are women) in Odisha to actively participate in the planning and

development of their settlements, thus promoting the representation of vulnerable communities in decision-making. In Kerala, SUDSC II collaborates with the "Samridhi@Kochi" initiative under the Indian Kudumbashree Mission\* to support of female community kitchen leaders in the city of Kochi: Through an Integrated Platform for Women Entrepreneurs (IPWE), an independent society governed by a diverse council of women leaders and entrepreneurs, the project facilitates the creation of women-led businesses by SHG members. The platform provides training and mentorship programs, equipping women SHG members with the tools to establish sustainable ventures, thus promoting their economic independence.

### → Success Factors

A key success factor of the project is its alignment with India's development priorities through collaboration with state initiatives and missions such as the Kudumbashree Mission. To further secure stakeholder buy-in, the project has conducted capacity development measures on gender disaggregated data methods using GIS and Data Analytics. According to GIZ interview partners, government partners particularly valued this approach, highlighting the importance of conducting gender-sensitisation among technical staff in government institutions. Moreover, the project underscores the importance of not only including women as beneficiaries, but also recognising them as co-owners, developers, planners. Actively engaging women's voices in decision-making processes ensures more inclusive and sustainable urban development.

## 2. Stakeholder Landscape: Sustainable Urban Development



The stakeholder landscape of the sustainable urban development sector comprises diverse actors, with some focusing primarily on gender equality and others incorporating it as one aspect of their work.

At the national level, several key ministries contribute to including women’s needs in urban planning. MoHUA leads urban development policies, while MoRTH and MHA (notably its Police Department) focus on women’s safety in public transportation. MHA also collaborates with the MWCD on the Sakhi Niwas scheme, which provides affordable housing for working women. However, state-level actors play a particularly crucial

role in this sector, as urban planning falls under state jurisdiction. Nodal departments for women and child development implement national schemes for women’s rights and empowerment at the state level. Despite integrating gender-focused initiatives within state urban development departments remaining a challenge (GIZ, n.d.), some states have made notable progress in adopting gender approaches. For instance, Odisha and Kerala have actively supported the formation of women SHGs under state-led missions. At the city level, urban local bodies (ULBs) are key stakeholders in implementing gender-related projects, though many lack the necessary technical capacity (GIZ, n.d.).

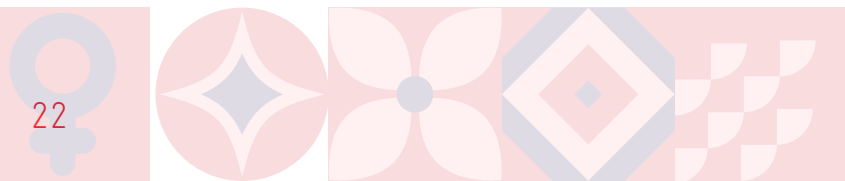
Private sector and industry actors contribute to gender-inclusive urban planning, particularly in mobility and housing. One example often cited is Safetipin, an Indian social impact company, that collaborates with local, national, and international government and non-government actors to make public spaces safer and more inclusive for women. A key aspect of its work is data collection through various mobile applications, which provide evidence on safety-related factors to relevant stakeholders, such as public service providers. Beyond its national initiatives, Safetipin engages in global strategic alliances to unite gender-focused transport initiatives, together with the BMZ-supported international initiative Women Mobilize Women (WMW) (WMW, 2023). In the area of housing and infrastructure, the government-owned Housing and Urban Development Corporation HUDCO facilitates urban development with a focus on vulnerable groups, financing projects and acting as an appraisal agency for MoHUA's PMAY housing scheme. Since the 1980s, HUDCO has supported shelters for women-headed households and women-led slum redevelopment.

Despite the international donor landscape remaining relatively limited, BMZ representatives see Germany as a crucial actors in bilateral cooperation on urban development in India. With regards to multilateral cooperation, UN agencies play a significant role in integrating gender concerns into urban policies and programs. For instance, UNDP has supported shape gender-responsive urban renewal and expanding childcare services for low-income urban households, in partnerships with the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), MoHUA and BMGF (UNDP, n.d.). UNFPA supports Bhubaneswar's Smart City Plan, focusing on young people and women, while UN India and the National Institute of Urban Affairs (NIUA) jointly developed a policy brief on gender and disability inclusion (NIUA and UN in India, 2022).

Among national research institutions, NIUA maintains strong relationships with key government actors and thus plays an influential role for gender inclusion in urban development. It collaborates with the MoHUA and the Architecture and Regional Planning Department at the Indian Institute of Technology (IIT) Kharagpur to develop an inclusive cities framework targeting vulnerable parts of the population, including women.

At the local level, civil society actors act as crucial intermediaries between citizens and the government. The grassroots organisation Mahila Housing Trust (MHT), for instance, cooperated with the city of Jodhpur to incorporate a focus on marginalised women in its Heat Action Plan (NRDC et. al, 2023). However, BMZ interviewees highlight insufficient Indo-German cooperation with civil society actors. Some partnerships exist, such as Janaagraha's involvement in the SUD-SCI II project and the All India Women's Conference (AIWC) collaboration with the German Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) on gender in urban climate change. Expanding bilateral cooperation to include local community actors, such as community kitchens and women SHGs, could significantly enhance gender equality initiatives. According to a Kerala urban planning representative, strengthening neighbourhood-level participation in governance processes (such as ward sabhas) would give communities greater ownership over city planning and reinforce the „fourth tier of governance.“

In conclusion, the stakeholder landscape for sustainable urban development highlights strong community structures and collaborations between the state, civil society, and the private sector to integrate gender approaches into urban development. International actors, including German development cooperation, could strengthen their role by engaging more closely with civil society and building on the existing efforts of local government actors.



### 3. Conclusion and Strategic Recommendations for Future Cooperation

Building on the policy analysis and findings from key stakeholder interviews, this study finds several areas of alignment between India and Germany in their approaches to promoting gender equality in sustainable urban development. Firstly, both countries prioritise inclusive mobility as a critical factor in advancing gender equality within the sector. Secondly, they share a commitment to enhancing women's access to essential infrastructure such as water and sanitation as a means of fostering gender equity. In this regard, the study identifies potential for greater engagement from the German side in promoting affordable housing for women. Thirdly, both Indian government partners and German DC actors emphasised the importance of working with gender-disaggregated data, while also recognizing the need for improved data collection and data analysis efforts in the future. Both partners highlighted the role of citizen engagement in mainstreaming gender equality objectives within urban development policies and programs. More generally, stakeholders described a growing awareness of gender issues in urban development among planning committees across the country, creating space for more women's empowerment initiatives in the sector. The following section outlines strategic recommendations for strengthening bilateral cooperation based on the joint priorities of both partners.



#### Engage Closely with City and State-Level Governments for Gender Equality Initiatives

The study observed a rising awareness of gender issues in urban development among city and state administrations across India. Interviewees particularly noted interest among Indian government partners in exploring ways to make basic infrastructure more gender-inclusive and to better integrate women into disaster response and resilience efforts. A stakeholder from MoHUA highlighted the need for close collaboration with state governments on gender initiatives in urban planning, as this area falls under state jurisdiction. Based on these insights, the study recommends that German DC actors continue to strengthen collaboration with city and state-level governments, recognizing them as key stakeholders in advancing gender-sensitive urban development.



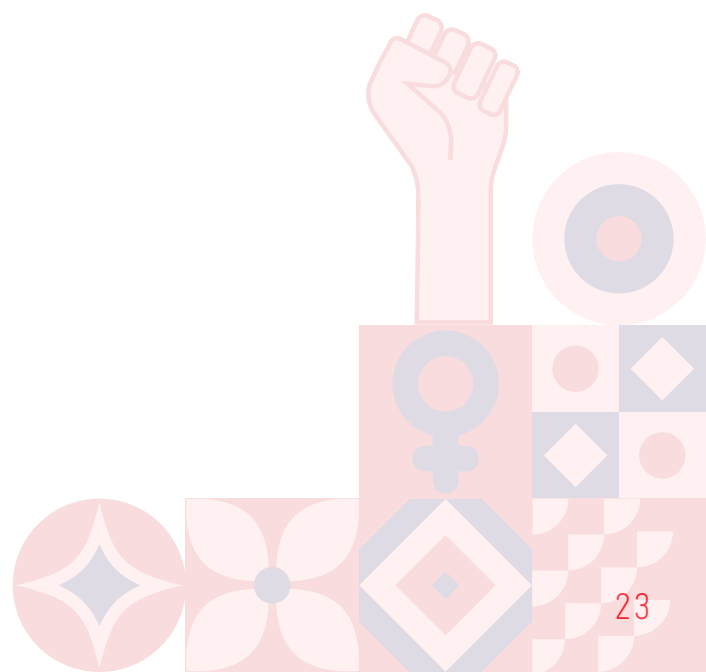
#### Implement Capacity Building Trainings for State-Level Urban Planning Departments

The study team noted a growing awareness and efforts among Indian government partners to address gender-specific challenges in urban development. However, state-level urban planning departments may sometimes lack the technical expertise and capacities needed to effectively integrate gender-responsive approaches into their work. To this end, the study recommends that German DC actors prioritise capacity-building initiatives for state-level actors in urban planning. Providing targeted training and skill development will help equip them with the necessary knowledge and tools to incorporate gender-responsive strategies into various aspects of urban planning and development.



#### Build on Existing Efforts to Improve Gender Disaggregated Data Collection

The study finds that the lack of gender-disaggregated data remains a challenge for designing gender-responsive urban development projects. However, there is a growing focus on collecting such data in India, including at the city level. Notable initiatives in this regard include the gender-disaggregated ticketing system implemented in KSRTC buses in Kerala and the development of a citizen feedback app designed to capture the specific needs of women and children (among others) in urban development projects in Kochi. Based on these findings, the study recommends that German DC actors leverage existing initiatives, and the Indian government's interest in data-driven planning, to support the development of reliable and comprehensive gender-disaggregated data collection systems.



## Sector Analysis: Renewable Energy

This chapter outlines the findings of the policy and stakeholder analysis on gender equality initiatives in India's renewable energy sector.

### Indian Policy Priorities

Interviews with stakeholders from the Ministry of New and Renewable Energy (MNRE) and the Bureau of Energy Efficiency (BEE) indicated that no formal gender-specific policies existed in India's renewable energy sector at the time of the study's implementation. However, stakeholders from both MNRE and BEE expressed interest in adopting more gender-sensitive approaches in the future. Additionally, several ongoing projects in the sector already integrate strategies that contribute to women's empowerment, primarily through skilling and livelihoods generation.

Insights from stakeholder interviews indicate that a key priority in the renewable energy (RE) sector is to highlight and promote women-centric success stories, programs, and initiatives. According to representatives from the MNRE, BEE and UN Women, a significant challenge in the sector is the low representation of women in RE jobs, both in industry and administration. A stakeholder from the BEE emphasised that significant gaps exist in connecting women students to relevant job opportunities. Encouraging them to pursue careers in the field is often challenging due to working conditions like offshore locations and night shifts. Moreover, social norms pose barriers with families not always being supportive of women pursuing careers in this field. This finding was further corroborated by a stakeholder from the intergovernmental organisation the International Solar Alliance, who highlighted the lack of women in technical and leadership positions in the sector. Addressing these barriers through resource sharing, networking and visibility of successful initiatives is considered essential for increasing women's participation in the sector. To support this effort, the MNRE has launched the Women in RE initiative, which showcases success stories of women in the sector and organises outreach activities and dialogues to raise awareness and promote greater workforce participation.

Another approach the Indian government employs to advance women's empowerment in the sector is through the distribution of Decentralized Renewable Energy (DRE) technologies for livelihood applications. DRE refers to energy that is generated independently from a centralised power grid, with DRE technologies

using renewable energy sources such as biomass, solar, small hydro and wind power. In partnership with The Energy and Resources Institute (TERI), the Jeevika project in Bihar has provided women-led SHGs with clean energy and lighting systems at subsidised rates (Bihar Rural Livelihoods Promotion Society [BRLPS], n.d.). Through a unique cost-sharing model, rural women in the state procured solar panels with 60% of the cost being borne by them and the remaining 40% being covered by Corporate Social Responsibility (CSR) funds and grants from bilateral and multilateral donors. Through the joint initiative, rural women were able to access an alternate source of power to complement erratic electricity supply in their villages and could harness it for livelihood applications. Similarly, under the Prerna Ojas project in Uttar Pradesh, members of women-led SHGs were trained in the assembly, distribution, repair and maintenance of solar study lamps. Through targeted capacity-building programs in solar technologies, the initiative not only provided rural women with access to clean lighting solutions but also created interlinked livelihood opportunities, thus empowering them economically (Prerna Ojas, n.d.).

The commitment to incorporating gender-sensitive approaches in the renewable energy sector was further emphasised at the global RE Invest event in September 2024. Hosted by the Indian government, this flagship event featured a dedicated panel titled 'Women as Leaders in Accelerating Energy Transition—Challenges & Opportunities,' which brought together government and industry stakeholders. The discussion focused on women's participation in the renewable energy sector, strategies to expand clean energy job opportunities for rural Indian women and the key stakeholders needed to drive an inclusive energy transition in India.

In conclusion, while formal gender-specific policies in India's renewable energy sector are still emerging, there is a clear commitment from key institutions such as MNRE and BEE to integrate gender-sensitive approaches into future initiatives. Existing efforts, particularly those focused on skilling and livelihood generation, demonstrate the potential for women's empowerment through renewable energy. Challenges such as low female representation in technical and leadership roles and barriers to workforce participation persist, but initiatives like Women in RE and DRE-based

livelihood projects illustrate effective strategies for inclusion. Additionally, platforms like RE Invest 2024 highlight a growing recognition of the importance of gender-responsive energy transitions at both policy and industry levels.

## ➔ German Policy Priorities

Based on a [secondary analysis](#) of policy documents and [stakeholder interviews](#), the study finds that German priorities regarding gender equality in the renewable energy sector can be encapsulated in three broad objectives, namely- 1) Supporting a socially just and inclusive energy transition, 2) Advancing women's economic empowerment through green jobs and green skills, and 3) Promoting gender-inclusive climate and energy policies.

Under the GSDP, Germany has committed to work with India on ensuring that the shift from fossil fuels to renewable energy is facilitated in a manner that guarantees fairness, equity and inclusion for targeted populations. With respect to gender equality, this means ensuring that women are included as both beneficiaries and drivers of the energy transition. Furthermore, it involves efforts to protect social groups that have historically depended on fossil fuels for their livelihoods and mitigating social and economic inequalities exacerbated by the transition. This approach aligns with the Asia Strategy, which outlines Germany's commitment to minimizing the adverse impacts of the energy transition on vulnerable communities (Federal Ministry for Economic Cooperation and Development [BMZ], 2023c).

The second key approach in the sector is to advance women's economic empowerment through the creation of green jobs and fostering of green skills. As per the Feminist Development Policy, the BMZ actively supports the capacity building of women in green skills through training, reskilling and professional development programmes (Federal Ministry for Economic Cooperation and Development [BMZ], 2023a). At the same time, the Asia Strategy proposes that any initiatives aimed at creating fair and green jobs should also help in formalising informal jobs, with a particular focus on safeguarding women and other marginalised populations (Federal Ministry for Economic Cooperation and Development [BMZ], 2023c)

Finally, Germany aims to foster gender equality in the sector by supporting gender-inclusive climate and energy policies. It pursues this goal by promoting the equal participation of women and Indigenous Peoples in

key decision-making and planning roles. In particular, it focuses on the design and implementation of climate mitigation strategies that are human rights based, inclusive and gender equitable (Federal Ministry for Economic Cooperation and Development [BMZ], 2023b).

To conclude, Germany's approach to promoting gender equality in the renewable energy sector is anchored in three key priorities: ensuring a socially just and inclusive energy transition, advancing women's economic empowerment through green jobs and skills, and supporting gender-inclusive climate and energy policies. By integrating these objectives into its development cooperation with India (e.g., within the GSDP), Germany seeks to create a more equitable and sustainable energy landscape; one that not only mitigates the social and economic impacts of the transition but also unlocks opportunities for women and marginalised groups.

## ➔ Aligning Priorities: Opportunities for Indo-German Cooperation on Gender Equality in the Renewable Energy Sector

This section draws on a [secondary analysis](#) of relevant literature and [key stakeholder interviews](#) to- 1) Identify areas of alignment and potential collaboration between Indian and German approaches to gender equality in the renewable energy sector based on the policy priorities outlined in Chapters 3.1 and 3.2, 2) Map key stakeholders shaping policy development and implementation in the sector, and 3) Present strategic recommendations to enhance bilateral cooperation in the future.

### 1. Mapping Areas of Alignment and Opportunities for Cooperation

India and Germany share a longstanding energy partnership, institutionalised in 2006 with the Indo-German Energy Forum (IGEF). Implemented by GIZ and KfW in cooperation with India's BEE, the IGEF serves as a platform for governments and businesses to exchange knowledge, promote investment and collaborate on research, supporting both countries in achieving their energy policy goals. Although there are no formal gender-specific policies in the renewable energy sector in India yet, [interviews](#) with both government and non-government stakeholders highlighted several areas of alignment and opportunities for bilateral collaboration on the topic.

Both India and Germany are committed to promoting women's employment in green jobs. According to a stakeholder from the Council on Energy, Environment and Water (CEEW), a public policy think tank, India must generate 90 million jobs by 2030 within the green economy, while at the same time ensuring that these opportunities are inclusive and accessible. However, interviews with both government and non-government stakeholders indicate that women remain underrepresented in technical fields for a variety of reasons. Recognising this challenge, Indian ministries such as MNRE have prioritised increasing women's participation in the industry by, for instance, creating platforms to share experiences, initiatives, and success stories of women in the sector (e.g., Women in RE). However, there is scope for greater engagement, particularly with respect to bridging the gap between women STEM graduates and ensuring and creating good and decent jobs in the renewable energy sector.

Stakeholder interviews with government and non-government partners in India identified DRE technologies as a promising tool for enhancing rural women's livelihoods. Experiences from various states moreover demonstrate that DRE solutions, such as solar lamps and dryers, enable women to productively harness clean energy to support their enterprises and income-generating activities. Interview partners from the MNRE and BEE emphasised the valuable role of German DC in sharing concrete, implementation-based knowledge on the use of such technologies. They identified studies, trainings and other capacity building activities as key areas for future cooperation. German DC partners additionally noted a growing interest in

Indian industry stakeholders in gender sensitisation trainings, highlighting this as a rich area for further collaboration.

Notably, in the focus group discussion, German DC partners underscored the role of emerging technologies in the field. They highlighted that future interventions in the renewable energy sector will be deeply influenced by changes in technology. To this end, with evolving knowledge and technology, Indian and German actors will have more opportunities at their disposal to create state-of-the-art solutions that are responsive to women's distinct needs in the sector.

In summary, despite the absence of formal gender-specific policies in the renewable energy sector, stakeholder insights reveal several areas of alignment and potential for bilateral cooperation between India and Germany. Both countries are committed to increasing women's employment in green jobs. However, challenges remain in bridging the gap between women STEM graduates and technical roles in the sector. India has taken initial steps, such as creating platforms to showcase women's contributions to renewable energy, but further engagement is needed to improve women's representation in the sector. DRE technologies moreover present a significant opportunity to enhance rural women's livelihoods. To this end, Indian stakeholders identify a significant role for German DC in the form of implementation-based knowledge sharing and capacity-building initiatives. Strengthening Indo-German cooperation in these areas can contribute to more inclusive and sustainable growth in the renewable energy sector.



# Promotion of Solar Water Pumps through the Indo-German Energy Programme

## → Project Overview

The GIZ project Promotion of Solar Water Pumps focused on the deployment of renewable energy technologies in a few selected groundwater-rich but energy-poor states in the eastern and north-eastern parts of India. The project's objective was to facilitate the deployment of renewable energy technologies across selected sectors (e.g. agriculture), leading to the adoption of clean technologies and reduced use of fossil fuel. To reach its goal, the project has facilitated the implementation of the PM KUSUM scheme, enabling the sustainable roll-out of solar water pumps as well as the support of financially and environmentally sustainable business models. Furthermore, the project provides capacity development for key stakeholders and agricultural workers to ensure climate-smart roll-out and installations of solar pumps.

## → Gender Approaches

The project has contributed to the integration of gender-sensitive and gender-responsive approaches in the field of renewable energy, which is particularly challenging as gender issues are often overlooked in the sector. In particular, it has implemented several gender-responsive and gender-sensitive measures to strengthen women's roles in climate-resilient farming by improving their access to resources and their representation.

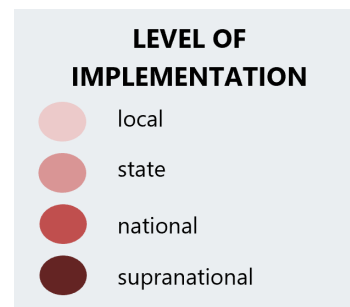
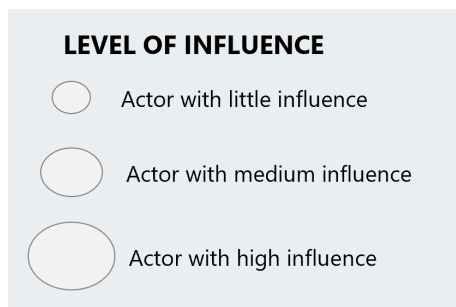
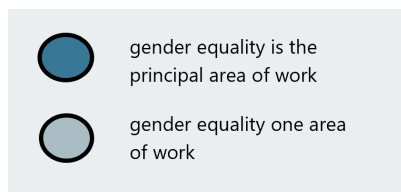
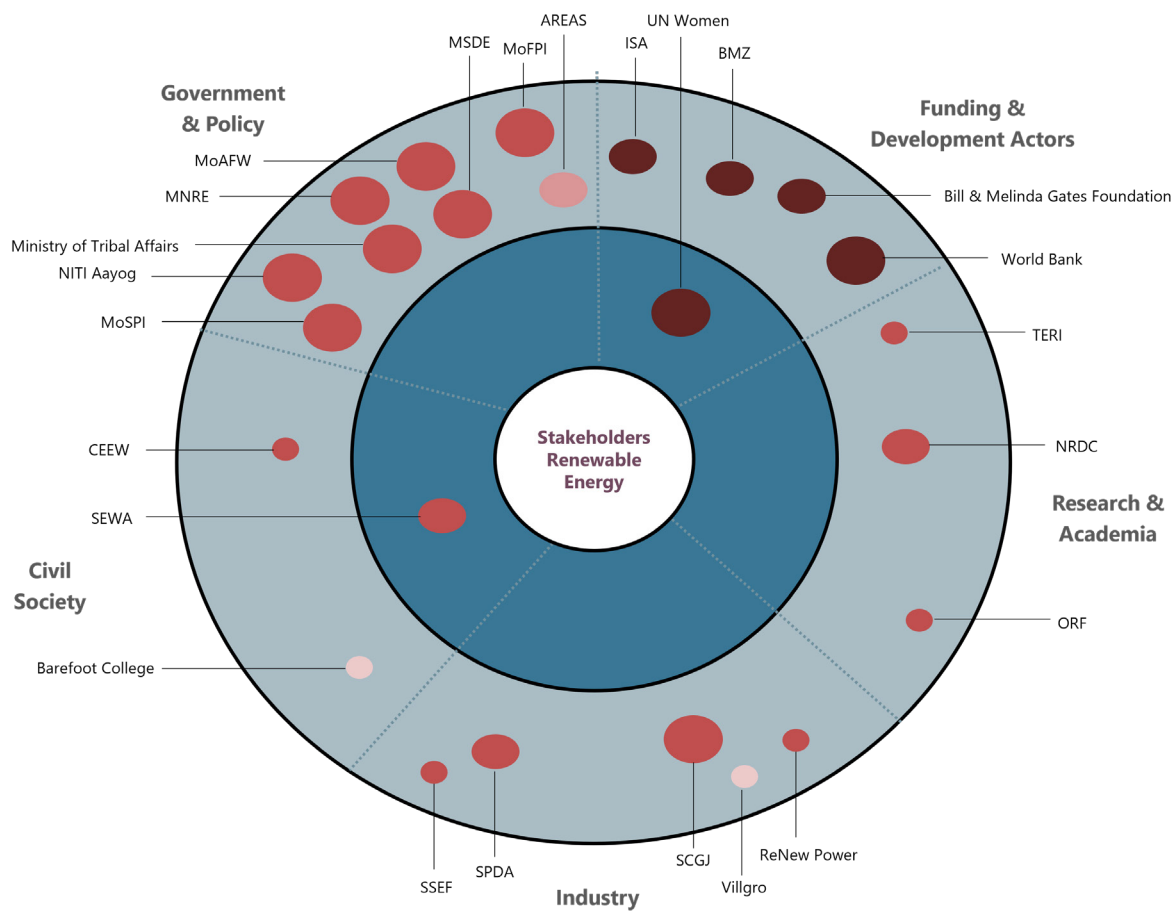
As a key activity of the project, women were supported in deploying renewable energy-based technologies. First, the project has promoted micro-solar irrigation pumps, particularly benefiting women farmers who manage small plots of land. These pumps are easy to operate, portable, and cost-effective, leading to increased agricultural productivity and income, including for women farmers who use them for livestock rearing. Second, a value chain-based approach has

introduced solar dryers and milking machines in sectors like fisheries and dairy, where women are heavily involved. To increase women's access to finance, the project facilitated access to finance by designing a collateral-free financial instrument with a Non-Banking Financing Corporation (NBFC), offering small loans with a repayment period tailored to women farmers, as it aligns with agricultural cycles and addresses their limited access to traditional loans. The project's additional capacity-development initiatives included training on the operation of solar water pumps and on agricultural extension services. These trainings were designed in a gender-sensitive manner, with women farmers included as trainers, recognizing them as active change-makers. Another notable contribution of the project was its support in digitising the monitoring and evaluation of the PM-KUSUM scheme, by supporting the MNRE with the development of a digital portal that tracks gender-disaggregated data of the scheme's beneficiaries.

## → Success Factors

The project illustrates the importance of incorporating women's diverse needs in activities focused on the deployment of new technologies. By including a gender perspective in value chain-based approaches and in the design of financial instruments that cater specifically to women farmers, the project managed to create a broader understanding of gender-related issues across different stakeholders operating in a sector that many consider to be gender-neutral.

## 2. Stakeholder Landscape: Renewable Energy



The stakeholder landscape at the intersection of gender and renewable energy in India is evolving, presenting both challenges and opportunities. Compared to the other sectors analysed in this study, the renewable energy sector has fewer actors primarily focused on gender equality. However, there is growing recognition of its importance, as reflected in various programs and initiatives aimed at women’s empowerment within the sector. Many influential stakeholders implement women-focused programs through multi-stakeholder collaborations involving public, private, and civil society actors (mainly FPOs and women SHGs).

As mentioned previously, a major institutional player in this landscape is the MNRE, which leads the Women in RE initiative, supported by the Natural Resources Defense Council (NRDC). As another key stakeholder, the Council on Energy, Environment and Water (CEEW) has launched the ‘Women in Sustainability’ (WiS) network to enhance women’s representation in sustainability public policy. Its Powering Livelihoods initiative, implemented in collaboration between CEEW and the social enterprise incubator Villgro, as well as women’s SHGs, focuses on delivering DRE technologies such as solar pumps, dryers, and cold storage to

various rural communities across India, with a strong emphasis on female workers. Beyond MNRE, several other ministries play pivotal roles at the intersection of renewable energy and women's empowerment. According to a CEEW representative, ministries such as the MoRD, the Ministry of Agriculture & Farmers' Welfare (MoAFW), or the Ministry of Food Processing Industries (MoFPI) promote the use of renewable energy technologies in industrial or agricultural sectors, which can improve women workers' livelihoods in rural areas. The Ministry of Tribal Affairs also implements schemes targeting women, particularly in Northeast India. However, a significant challenge remains in fostering convergence and coordination among these ministries to increase women's participation in the renewable energy sector.

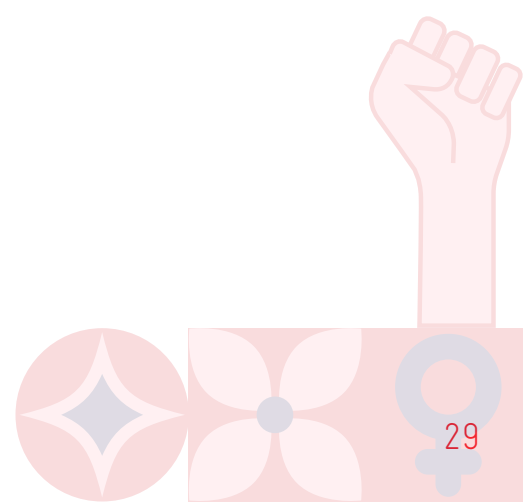
In addition, private sector and industry involvement in skill development and employment generation for women in renewable energy is notable. Several organisations train women as solar engineers, transitioning them from labor-intensive, often informal industries such as salt pan work (ReNew, 2024) and coal mining (TERI, 2023). Key examples mentioned during interviews include the Barefoot College with its Solar Mamas project, TERI with its SheUdyami initiative, or the International Solar Alliance (ISA) with its Solar for She programme. Furthermore, the Skill Council for Green Jobs (SCGJ) has provided training and mentorship to women in the green economy to take on jobs traditionally held by men through its WePower initiative. Private sector involvement in the field of skill development is comparatively notable. In addition to actors like Villgro and SCFJ, ReNew Power, one of India's largest clean energy companies, runs initiatives to promote gender diversity in the renewable energy workforce, acknowledging the disproportionate impact of climate change and energy transition on women (ReNew, 2024).

Civil society engagement and visibility in renewable energy remains limited but holds strong potential. BMZ interviewees recognise a lack of collaboration with civil society actors in the sector. However, local organizations, particularly FPOs and SHGs, offer significant opportunities for engagement. As seen in the agroecology and food systems sector, grassroots organizations play a critical role in implementing gender-focused projects at the community level, as they tie-up to implement women-specific government schemes. A key player at this intersection is SEWA, which partners with multiple organisations to implement women-led initiatives. For instance, the

Haryali Green Villages initiative – led by SEWA, NRDC, and the Association of Renewable Energy Agencies of States (AREAS) – enhances access to clean energy and energy-efficient technologies while actively involving women in decision-making, financing, and implementation processes, alongside skill development (SEWA and NRDC, 2021).

When it comes to the collection and use of gender data, the Indian government's public policy think tank NITI Aayog, with support from the BMGF, plays a significant role in shaping policies and producing research on women's empowerment in India. Additionally, CEEW has also contributed to research on gender inequalities in clean energy access (Zhang et al., 2022), demonstrating an interest in addressing gender data gaps.

In conclusion, the stakeholder landscape in India's renewable energy sector offers significant opportunities to advance gender equality through development cooperation. A diverse array of actors, including government ministries, private companies, and rural grassroots networks, demonstrates a growing recognition of the importance of gender issues in the sector. While challenges such as coordination among ministries and limited civil society engagement persist, the sector provides fertile ground for international development organizations to forge strategic partnerships and amplify existing efforts.



### 3. Conclusion and Strategic Recommendations for Future Cooperation

To conclude, India's renewable energy sector presents significant opportunities for advancing gender equality, despite the absence of formal gender-specific policies. Existing initiatives, such as Women in RE and DRE-based livelihood projects, demonstrate the potential for empowering women through skills development, employment opportunities and access to clean energy technologies. However, persistent challenges, such as low female representation in technical and leadership roles, limited workforce participation, and structural barriers, highlight the need for targeted interventions. Germany's development approach of emphasising a just and inclusive energy transition, green jobs for women and gender-responsive climate policies, aligns well with India's broader objectives, creating strong potential for bilateral cooperation. Key areas identified for joint action include capacity-building programmes for women in renewable energy technologies, expanding career pathways for women STEM graduates, strengthening multi-stakeholder networks and increasing engagement with the private sector to raise awareness regarding gender issues in RE. By leveraging shared priorities and commitments, Indo-German cooperation can drive a more inclusive and sustainable energy transition, ensuring that women are both beneficiaries and active contributors to the sector's growth. The following section outlines strategic recommendations for strengthening bilateral cooperation based on the joint priorities of both partners.



#### Provide Capacity Building Trainings in DRE Technologies and Market Linking Support

The use of DRE technologies enables women to productively harness clean energy to support their enterprises and income-generating activities. To maximise the potential of such technologies and their livelihood applications, the study recommends that German DC actors develop and implement targeted capacity-building programs to equip women with the necessary technical and business skills to effectively utilise these technologies. In rural communities where women engage in agro processing (e.g., using solar dryers for dried ginger or chilli production), German DC actors can further support their economic empowerment by facilitating market access. This could include digital skills trainings to help women sell their products through e-commerce platforms as well as

entrepreneurship and business development trainings to strengthen their capacity to scale their enterprises.



#### Facilitate Multi-Stakeholder Networks for Women's Empowerment in RE

Multi-stakeholder networks and working groups serve as valuable platforms for collaborating on women-centric policies and initiatives in the renewable energy sector. These forums can facilitate discussions on key topics such as training women in new renewable energy technologies, raising awareness of existing women-focused support programs and sharing best practices and success stories to inspire further action. The study recommends that German DC actors play a role in facilitating and supporting such networks. For example, they could assist MNRE in the establishment and coordination of its proposed inter-ministerial committee on women in renewable energy, helping to foster cross-sectoral dialogue and collaboration.



#### Scale Up and Replicate Gender Sensitisation Trainings for Industry Partners

The study notes a growing interest among Indian industry partners in gender sensitisation trainings within the renewable energy sector. Given that gender considerations in this sector have traditionally been overlooked and the field has often been viewed as gender-neutral, these trainings could play a crucial role in raising awareness and fostering inclusive work environments. The study recommends building on the success of initial gender sensitisation training efforts by GIZ, expanding and scaling these programs to engage a wider range of industry actors. These trainings should cover key gender concepts, highlight structural barriers women face in the RE sector and offer practical strategies for integrating gender-responsive practices into workplace policies, recruitment, and project implementation. Moreover, to ensure meaningful participation, these trainings must be designed and delivered in an inclusive manner, addressing common challenges such as care responsibilities, mobility constraints and time poverty. Flexible scheduling, accessible locations, virtual options, and support for childcare should be considered to enable greater participation of women.





## Facilitate and Expand Career Pathways in RE for Women STEM Graduates

While a significant proportion of STEM graduates in India are women, their participation in RE jobs remains low. The underrepresentation of women in STEM careers was identified by both government and non-government stakeholders in India as a critical challenge requiring urgent attention. To address this gap, the study recommends that German DC partners support women's employment in the sector by establishing mentorship programs at universities and

facilitating internships for women graduates. They can also play a role in connecting women with relevant job opportunities through online platforms or job-matching fairs. Importantly, these efforts should extend beyond Tier 1 cities and actively target women graduates in Tier 2 cities to ensure wider inclusion and accessibility. More generally, German DC partners should contribute towards the creation of decent jobs and promote the adoption of inclusive gender policies by institutions in the sector.



# Cross-sectoral Conclusions and Recommendations

The aim of this study was to explore the policy landscape, stakeholder environment and opportunities for Indo-German cooperation on gender equality and women's empowerment across the three key sectors of agroecology and food systems, sustainable urban development and renewable energy.

Following an in-depth analysis of Indian and German policy priorities, stakeholder perspectives and ongoing initiatives, the study has identified several areas of alignment between India and Germany's approaches to gender equality and concrete opportunities for future collaboration.

Across all three sectors, women's economic empowerment, access to critical resources and representation in decision-making emerge as central themes in both Indian and German policy frameworks. India's shift towards a women-led development approach, emphasising women's agency in driving social and economic change, closely aligns with Germany's focus on prioritising women's rights, resources and representation. These shared priorities provide a strong basis for strengthening bilateral cooperation across sectors.

A key finding of this study is the importance of capacity building and skill development in enabling women's workforce participation and economic empowerment. For example, in the agroecology and food systems sector, targeted training programs and knowledge-sharing initiatives can strengthen women-led producer organisations and improve access to sustainable agricultural practices. In the renewable energy sector, expanding technical training and mentorship programs will be critical in facilitating women's entry into green jobs and help promote a more inclusive energy transition.

Across the three sectors, gender-responsive data collection emerges as a critical area requiring increased efforts and bilateral cooperation. The absence of reliable gender-disaggregated data continues to hinder accurate demand forecasting and the design of effective interventions. Additionally, Indian government actors stressed the need for improved information on gender budgeting, highlighting it as another key area for further development.

The study moreover finds that women-led networks can play a critical role in future bilateral initiatives. In rural and urban development alike, SHGs and community cadres serve as important knowledge-sharing platforms and play a critical role in implementing gender-focused projects. These networks can be leveraged to enhance women's access to markets, promote peer learning and scale successful gender-inclusive initiatives.

Across all three sectors, the study finds that the success of gender initiatives will largely depend on how effectively cooperation actors can build on existing initiatives and networks. Aligning gender-focused interventions with ongoing efforts will not only strengthen stakeholder engagement but also help prevent duplication and ensure efficient resource use. Moreover, the development of culturally sensitive forms of communication will help foster trust and mutual understanding among Indian and German actors.

By focusing on these areas, Indo-German cooperation under the GSDP can play a transformative role in advancing gender equality in these key sectors. Moving forward, sustained policy dialogue, targeted investments and strengthened implementation mechanisms will be crucial for translating these opportunities into tangible outcomes. As India and Germany continue to collaborate on climate and sustainable development, ensuring women's full, equal, and meaningful participation in these sectors will not only contribute to gender equality but also drive broader

economic growth, social resilience and environmental sustainability. In closing, the study offers the following cross-sectoral recommendations to enhance future collaboration:



### **Integrate Gender Equality Objectives into Existing Socioeconomic Development Agendas**

To enhance alignment with India's national priorities and to strengthen stakeholder engagement, the study recommends that gender equality should be integrated into existing development frameworks rather than be treated as a separate issue. This involves integrating gender-focused approaches into existing policies and programmes across areas such as health, education, employment and sustainability, rather than treating them as separate initiatives. Examples of gender-focused activities that can be embedded in broader socioeconomic initiatives include capacity building and skills training programmes that equip women with the necessary knowledge for livelihood development and income-generation. More generally, gender equality should be positioned as a key enabler of socioeconomic development, emphasising its role in promoting economic growth, social equity and environmental sustainability. Aligning gender objectives with wider policy priorities will maximise the impact of interventions, ensure their long-term sustainability and reinforce institutional commitment from both government and development partners.



### **Cultivate Culturally Sensitive Styles of Communication on Gender Equality**

The study finds that although there is strong alignment on both sides in priorities and interests regarding gender equality, effective communication across cultural contexts can often be challenging. To strengthen cooperation, the study recommends that stakeholders should jointly foster a shared language, shared and agreed upon gender terminology and framework for discussing gender issues. Ensuring the alignment of terminology with local policy narratives will encourage stakeholder buy-in and relevance. Additionally, existing gender initiatives in the country should be systematically recognised and mapped even if they are not explicitly framed within international gender discourse to integrate local efforts into broader cooperation strategies. Promoting cross-cultural dialogue and exchange in this way is essential to build mutual understanding, trust and long-term commitment, ensuring that gender-focused interventions are both effective and locally embedded.



### **Leverage Community Cadres for Implementation of Gender Initiatives**

To ensure the effective and sustainable implementation of gender initiatives, the study suggests that Indian and German stakeholders should prioritise investment in and activation of community-based cadres as a 'fourth tier of government'. This could involve utilising established community cadres (e.g., Krishi Sakhis, Pashu Sakhis, Weather Didis) for capacity-building and knowledge dissemination and strengthening and incentivising them to expand their role in social and economic development. By mobilising these local networks, existing initiatives can gain more outreach and foster greater local engagement, thus ensuring the sustainability of outcomes.



### **Strengthen Knowledge Transfer on Gender Budgeting**

The study observes occasional uncertainty among Indian government partners regarding gender budgeting, including questions about the existence of such funds, their allocation and utilization processes. Without this clarity, even well-intentioned partners may struggle to effectively channel resources toward gender initiatives. The study proposes that German DC actors can play an important role in improving awareness, clarity and accessibility of gender budgeting among Indian partners based on Germany's experience. For example, they could develop a standardised resource toolkit outlining utilisation guidelines and implementation strategies to provide stakeholders with a structured reference. Additionally, targeted capacity-building workshops for government officials and key stakeholders will strengthen their ability to plan, access and implement gender-related financial resources effectively. Strengthening institutional capacity in gender budgeting will ensure that available resources are channelled efficiently, ultimately enhancing the impact of gender-focused initiatives. It is worth noting that initiatives of this nature may already be implemented by the MoWCD, the primary authority overseeing gender budgeting in India. These recommendations are made without direct input from the ministry, and the study recommends that any future interventions on the topic should be developed in consultation with them.



### **Strengthen Gender-Disaggregated Data Systems for Evidence-Based Decision-Making**

To improve evidence-based policymaking and enhance the effectiveness of gender initiatives, the study recommends that future bilateral cooperation should prioritise the development of robust gender-sensitive data systems. Key actions include leveraging existing expertise from both countries in data collection, processing and management to support Indian

stakeholders in developing standardised gender-disaggregated monitoring frameworks. Additionally, capacity building initiatives should be implemented to strengthen the capacity of government agencies, private sector actors and development practitioners to effectively utilise gender-sensitive data for policy formulation, program design and impact evaluation. By addressing data gaps, this approach will improve planning, implementation and monitoring across sectors while ensuring better resource allocation for gender-focused initiatives.

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## **List of Interview Partners: India**

National Rural Livelihoods Mission- Ministry of Rural Development

Ministry of Environment, Forest and Climate Change

Ministry of Housing and Urban Affairs

Ministry of New and Renewable Energy

Bureau of Energy Efficiency

Ministry of Skill Development and Entrepreneurship

NITI Ayog – National Institution for Transforming India

Automotive Skills Development Council

Council on Energy, Environment and Water

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