

SAARC Energy Center Webinar

Empowering Women in the Energy Sector through Development of Gender Inclusive Energy Policy Guidelines

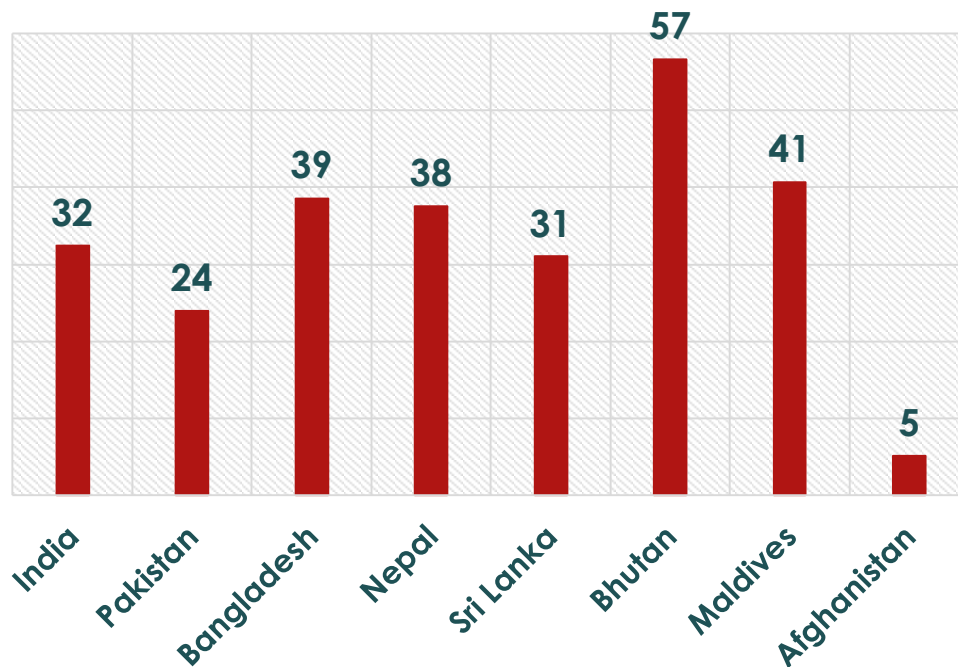
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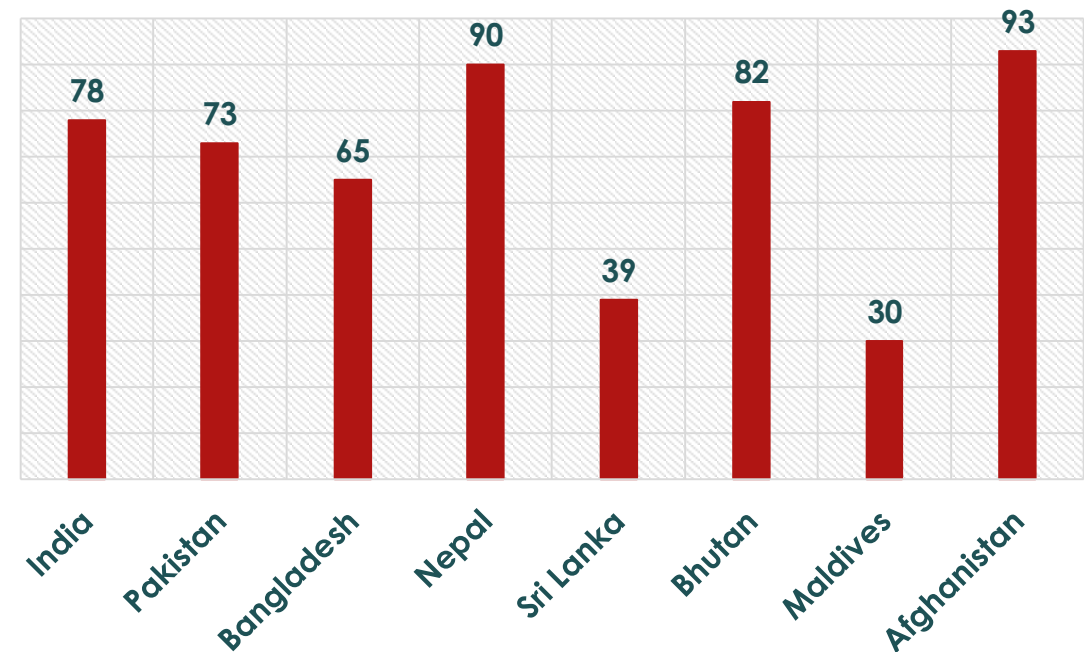
Preface

- ▶ South Asia is home to an estimated 2.1 billion people, accounting for roughly 25% of the global population; about 49% of them are women
- ▶ Since 1990, female labor force participation in the region has increased but marginally; female labor force participation rate is 33%; one of the lowest rates globally

Female Labor Force Participation %



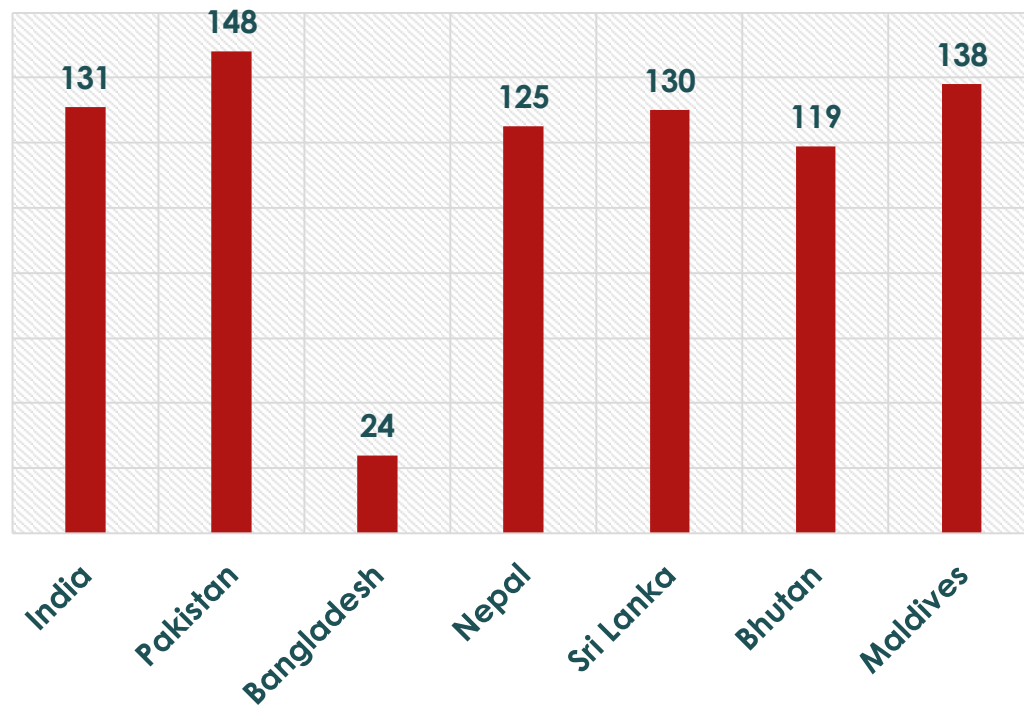
Vulnerable Employment %



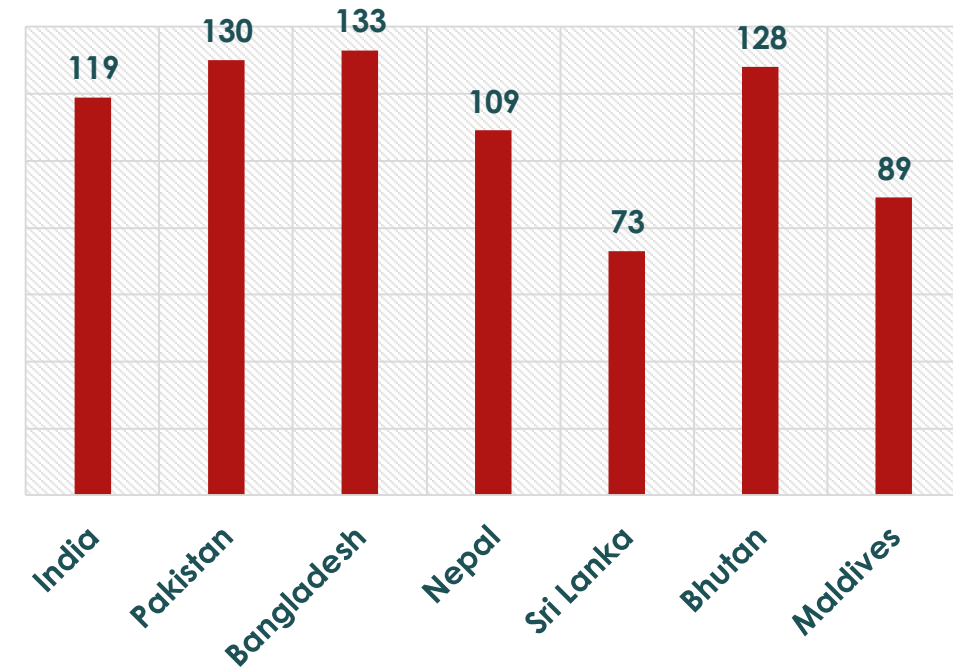
Preface (contd.)

- Factors contributing to women's inequality e.g., inadequate access to education, employment, health, reproductive rights, family and social life, also extend to women's access to energy and their participation in the energy workforce

Global Gender Gap Index Ranking 2025



Professional and Technical Workers Ranking 2025

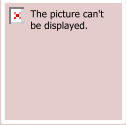


Women in Energy - SAARC

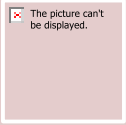
- ▶ Sector heavily male dominated despite gradual progress in women's educational attainment and workforce participation in the SAARC region
- ▶ Women account for roughly 5% to 24% of the workforce in energy utilities, while participation in technical and engineering roles is even lower

	Women in Total Power Sector Workforce	Women in Technical & Engineering Roles
Afghanistan	10%	< 1%
Bangladesh	8% to 9%	5%
Bhutan	24%	22%
India	10% to 12%	3% to 6%
Maldives	15%	0.24%
Nepal	13% to 16%	6% to 14%
Pakistan	5%	4%
Sri Lanka	14% to 16%	6%

Why Women in Energy?



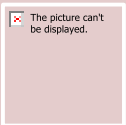
Energy for women's daily activities - cooking, heating, agricultural tasks, & rural industrial processes



In areas without modern energy, women spend time collecting fuel, adding to their unpaid work



Limited access to clean and sustainable energy means - women face the greatest health risks



Despite low economic participation rates, women manage nearly one-third of household energy consumption in South Asia

Why Women in Energy?



Economies that leverage the skills of their entire workforce are more productive and resilient

Status of Women in Energy - SAARC

Women underrepresented in many industrial sectors, not just in energy and green technologies

Unequal access to skills, technology, finance, and professional networks limit their opportunities

Societal constraints and discrimination restrict their access to essential resources

Women - a small share of the energy workforce - participation generally higher in administrative and community outreach than in technical or leadership positions

Countries that once prioritized gender issues in energy access and clean cooking are now focusing more on workforce inclusion and leadership representation

Country-wise Status

Bhutan

Gender references in energy policies remain relatively limited and less institutionalized historically; focus limited to equitable energy access, rural development, and community welfare

Recent evidence: Bhutan has surpassed other countries in the region; women represent 24% of total employees in Bhutan's power sector

Bhutan's success is driven by active structural reforms, targeted infrastructure development, and coordinated international partnerships

State-run entity (Druk Green Power Corporation (DGPC)) responsible for Bhutan's massive hydropower generation network is the main driver of gender-inclusive hiring

DGPC directly targets the main physical barriers - dedicated safeguards like secure housing for female technicians, dedicated hygiene facilities; setting up nursery and daycare centers

The "Powered by Women - Bhutan" initiative, launched in April 2026, will promote employment tracking and leadership training for mid-career female engineers in collaboration with MoENR, Regulatory Authority, and IFC

Country-wise Status (contd.)

Bhutan

Bhutan's National Energy Policy 2025 linked green growth with incentives to boost the hiring of local female engineers and green jobs

Large-scale cross-border clean energy initiatives include MoUs to create a joint skill-development ecosystem, offering specialized training for women in utility-scale solar farms and pumped-storage plants

Utilities face a limited pool of local female applicants in specialized civil and electrical engineering is a challenge

Continued coordination is required between the regulator and the Ministry to institutionalize gender equity indicators within national utility target

Country-wise Status (contd.)

India

India has established a robust framework to enhance women's participation in the energy sector

Rise of renewable energy, climate finance, and digital systems has opened new opportunities for women in solar energy, consulting, and energy finance

Linking gender inclusion with renewable energy growth and job creation; women are engaged in solar entrepreneurship, technician training, and community energy enterprises, expanding energy access

Supportive policies include renewable energy initiatives, skill development programs, and corporate diversity measures

Government-funded training has increased women's roles in solar installations

STEM programs further encourage women to pursue careers in engineering and renewable technologies

Private energy companies in India have made greater efforts to recruit, support, and promote women, which has helped increase women's participation in the energy industry

Despite all efforts, women remain underrepresented in utility roles, with leadership positions in state-owned energy institutions largely held by men

Country-wise Status (contd.)

Nepal

Nepal is among the most frequently cited SAARC examples for explicit gender mainstreaming efforts, particularly as stakeholders in energy transition policies

Energy policies are increasingly emphasizing representation and inclusion; Nepal stands out in for explicitly recognizing women's roles in decision-making within its energy policies

Integrated Gender Equality and Social Inclusion (GESI) principles in various sectors (including energy), recognizing women as stakeholders and decision-makers in energy policy

Focus shifted from energy access to emphasizing women's leadership and participation in energy governance and entrepreneurship

Using gender audit approaches to assess energy sector inclusiveness

Donor-supported hydropower projects and initiatives boosting female participation in energy governance and education

Women have greater visibility in community energy systems and rural electrification programs, although leadership positions in utilities and hydropower institutions remain male-dominated

Overall, implementation remains inconsistent due to gaps in institutional coordination despite strong policy commitments

Country-wise Status (contd.)

Bangladesh

Bangladesh integrating gender via addressing energy poverty; promoting women's empowerment in community based clean energy initiatives; growing representation in renewable energy entrepreneurship

Bangladesh's solar home system programs included women as technicians, sales agents, and entrepreneurs

Women have been trained and employed in renewable energy installation and maintenance programs; female technical graduates are increasing

Women's participation in rural electrification and decentralized renewable energy programs aided by gender budgeting initiatives and NGO-led programs

Bangladesh demonstrates that gender inclusion should be embedded at the project-design stage rather than added later as a social safeguard

Implementing a gender-inclusive energy policy in Bangladesh faces significant structural, social, and economic barriers

Traditional energy policies tend to prioritize technology and large infrastructure, often neglecting the specific energy needs of women

Patriarchal norms still impede women's access to credit and entrepreneurial opportunities in the energy sector, despite advances in gender equality

Country-wise Status (contd.)

Sri Lanka

Sri Lanka's energy policies increasingly acknowledge the health impacts of traditional cooking fuels, the gender dimensions of energy poverty, and women's participation in clean energy initiatives

Sri Lanka benefits from relatively strong female literacy and education indicators, which have improved women's representation in professional services and administrative functions within the energy sector

In energy, women are more visible in planning and administration; renewable energy show growing participation, but technical participation remains limited

Gender-energy policy frameworks are still underdeveloped

Country-wise Status (contd.)

Afghanistan

Women largely treated as beneficiaries rather than energy-sector participants

Focus on clean energy access for rural women

Energy strategies contain references to women's energy vulnerability but no institutional gender mainstreaming mechanisms

Limited institutional provisions for women's representation in energy governance

Maldives

Recent workplace indicators and specific corporate tracking show progress in shifting women from administrative roles into technical pipelines across the Maldives' infrastructure and utility networks

In an unprecedented shift for the country's technical sectors, 100% of all technical apprentices recruited in 2024 were women (surpassing the baseline of 0% in 2021)

Country-wise Status (contd.)

Pakistan

One of the lowest rates of female participation in the formal energy workforce in South Asia

Some progress through institutional initiatives rather than through a comprehensive national gender-energy framework

Women concentrated mainly in policy analysis, research institutions, academia, and donor-funded energy programs and sustainability initiatives

Policy regime facilitated inclusion only indirectly through climate adaptation programs, renewable energy initiatives, and general public-sector gender quotas; significant gaps remain

No dedicated National Gender and Energy Policy, a Gender Mainstreaming Framework for Energy Institutions, and a Women in Energy Leadership Strategy

Underrepresentation in the energy sector creates multiple economic and institutional inefficiencies: reduced utilization of human capital; lower workforce diversity and innovation capacity; weak representation of household energy realities in policymaking; limited gender responsiveness in energy access and affordability programs

Challenges in Pakistan

16

Educational & Technical Barriers

- Women are underrepresented in STEM fields related to energy

Workplace Constraints

- Insufficient safety measures, transport limitations, and weak institutional support discourage female participation

Leadership & Representation Gaps

- Women hold limited leadership roles in energy ministries, utilities, regulators, and other energy companies

Financial & Entrepreneurial Constraints

- Women-led businesses in renewable energy and clean cooking sectors often face difficulty accessing credit, technical training, and market networks

Social & Cultural Norms

- Social expectations regarding gender roles continue to influence career choices and workplace opportunities

Weak & Fragmented Approach

- Pakistan lacks a strong & coordinated framework for women's participation in energy sector

Focus on Infrastructure rather than Inclusion

- Energy reforms have largely focused on electricity shortages, circular debt, tariffs, fuel imports, and infrastructure expansion; workforce diversity and gender inclusion have not been major priorities within sector reforms

National Gender Policy Framework (NGPF) 2022

- ⑩ It aims to mainstream gender across public policy, improve women's economic participation, and integrate gender considerations into development planning
- ⑩ It does provide a basis for gender-responsive energy planning, women's participation in energy governance, and inclusion of women in green jobs and energy transition initiatives; however, it does not provide sector-specific guidance for energy institutions

Banking on Equality Policy (2020-21)

- ⑩ It includes gender diversity targets, gender-disaggregated data reporting, women-friendly workplace policies, women's leadership and workforce participation targets, and institutional accountability mechanisms
- ⑩ For the energy sector, this framework demonstrates how a regulator can move beyond general commitments and introduce measurable targets, reporting obligations, workforce inclusion indicators, and institutional accountability, institutional accountability, and gender-sensitive operational guidelines

Gender Inclusive Policies – Pakistan (contd.)

18

Punjab Women Development Policy (PWDP) 2018

- ⑩ The policy adopts a gender-mainstreaming approach across government departments, focusing on economic empowerment, education and skills development, governance, climate change, ICT, and gender reforms
- ⑩ It promotes gender integration in planning and supports women's participation in technical and economic sectors

Climate Change Gender Action Plan (2022)

- ⑩ It features gender-responsive climate planning, women's participation in adaptation and resilience programs, inclusion of women in policy dialogue and project design, and capacity-building for government institutions
- ⑩ Energy transition and climate policy are increasingly interconnected; this framework offers useful guidance for renewable energy programs, clean energy access, and gender-responsive energy transition planning

Constitution of Pakistan

- ⑩ The Constitution of Pakistan already contains several gender-equality provisions (Article 25, 27, 34, 37e) which provide enough legal justification for gender-inclusive sectoral policies, including in energy institutions

Gender Inclusive Policies – Pakistan (contd.)

19

- ▶ SECP mandates female representation on the boards of listed companies and companies of public interest (including energy companies) to break male monopolies and improve governance
 - ▶ Women directors increased from 6% in 2017 to about 12% to 14% now
- ▶ But most energy boards treat this as a strict compliance checkbox rather than a deep structural pivot
 - ▶ Tokenism has proven to be self-defeating; symbolic appointments reinforce stereotypes and hinder boards from benefiting from diversity
- ▶ Pakistan has established gender and climate frameworks but,
 - ▶ Missing is the framework which include guidelines for gender-responsive energy planning, women's workforce targets, gender-disaggregated reporting, diversity standards, leadership frameworks, impact assessments, and strategies for a gender-responsive energy transition
 - ▶ Pakistan's National Determined Contributions (NDCs) and power sector initiatives do not formally incorporate gender budgeting

How Policy Regimes Facilitated Women's Inclusion in SAARC

- ▶ **Renewable Energy Policies:** Renewable energy has created jobs in solar systems, clean cooking, mini-grids, and community electrification with lower entry barriers **but in Pakistan, overarching renewable energy and power policies are largely gender-blind.**
- ▶ **Gender Mainstreaming in Development Programs:** IFIs increasingly require gender-responsive project frameworks, female hiring targets, and gender impact assessments in energy projects; **in Pakistan IFI funding mandates have driven a significant shift toward the mandatory inclusion of gender, the real impact has yet to be seen**
- ▶ **Technical Training and Skill Development:** Countries, e.g., India, that invested in technical training for women in energy-related disciplines saw greater workforce participation
- ▶ **Climate Finance and ESG Requirements:** International climate financing and ESG standards encouraged energy firms and utilities to improve workforce diversity and institutional inclusion
 - ▶ The Maldives and Bangladesh illustrate how international ESG mandates and climate financing impact institutional diversity. **Pakistani energy entities and heavy industries are also being forced to adopt ESG Disclosure Handbooks to attract foreign and climate investors, but implementation rates remain flawed and inconsistent**

The most advanced approaches in the SAARC region are shifting from viewing women merely as energy consumers to actively involving them in energy governance, including participation in technical employment, renewable energy entrepreneurship, regulatory institutions, and leadership roles

India	Gender-responsive hiring policies; technical training and mentorship programs; and greater representation of women in renewable energy companies
Bangladesh	Women-led solar and clean-energy enterprises; community-based energy programs; easy access to financing for women entrepreneurs
Nepal	Women's participation in local energy governance; gender auditing approaches
Bhutan	Gender inclusion works best when it is embedded in overall development and energy planning, supported by education, community participation, providing safeguards, and coordinated government action

More successful countries created stronger links between education, employment, workplace inclusion, energy-sector governance, and financial inclusion

Integrate gender-responsive policies with institutional accountability mechanisms - include workforce targets, gender audits, and mentorship programs

Barriers facing women in Pakistan stem directly from patriarchal social structures, tribal customs, feudal traditions, and cultural norms, leading to restrictions on mobility, denial of inheritance, and limited workforce participation - these practices often persist despite conflicting with both national law and Islamic teachings

Common Structural Problems/ Gaps – SAARC

Absence of Dedicated Gender and Energy Policies: No comprehensive framework that links gender equality to energy planning and workforce development

Limited Gender Mainstreaming in Energy Governance: Insufficient institutional support for women's participation in decision-making, and women are underrepresented in leadership roles

Weak Workforce Inclusion Frameworks: Workplaces are predominantly male-dominated; challenges in recruiting and retaining women engineers and offering limited opportunities for career progression

Insufficient Gender Consideration in Energy Project Design: Limited assessment of how projects affect women differently, resulting in missed opportunities for women's economic participation

Weak Regulatory Oversight: Energy regulators rarely monitor diversity and inclusion performance; no institutional accountability for gender outcomes

Lack of Gender-Disaggregated Data: Many energy institutions do not consistently gather or publish gender-disaggregated workforce

Common Structural Problems/ Gaps – SAARC (contd.)

23

Limited Support for Women Energy Entrepreneurs: Women are often excluded from energy value chains due to barriers to financing and market access

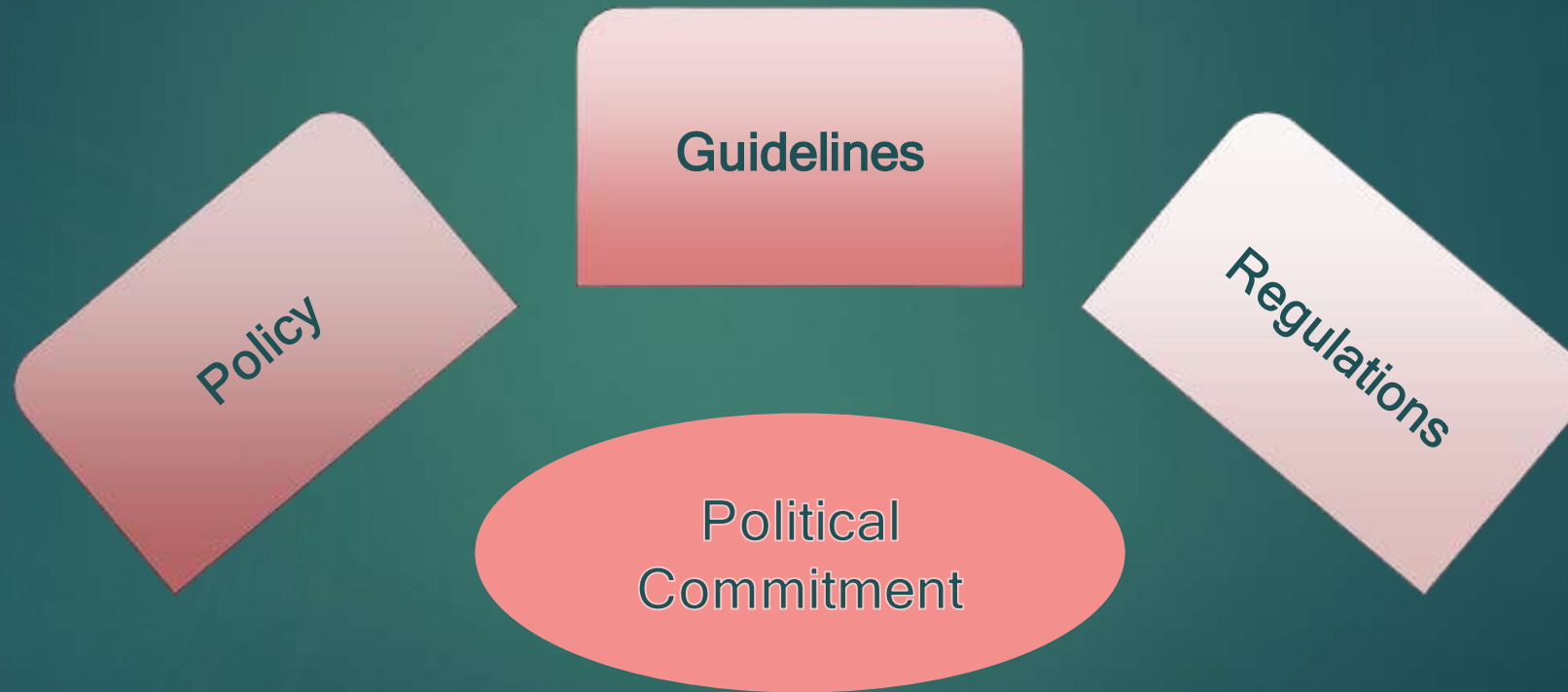
Social Norms & Safety: Cultural restrictions, safety concerns during commutes, and long working hours limit women's participation in field-based energy jobs

Informal Exclusion Networks: Mentorship, networking, and technical exposure opportunities frequently remain male-centric

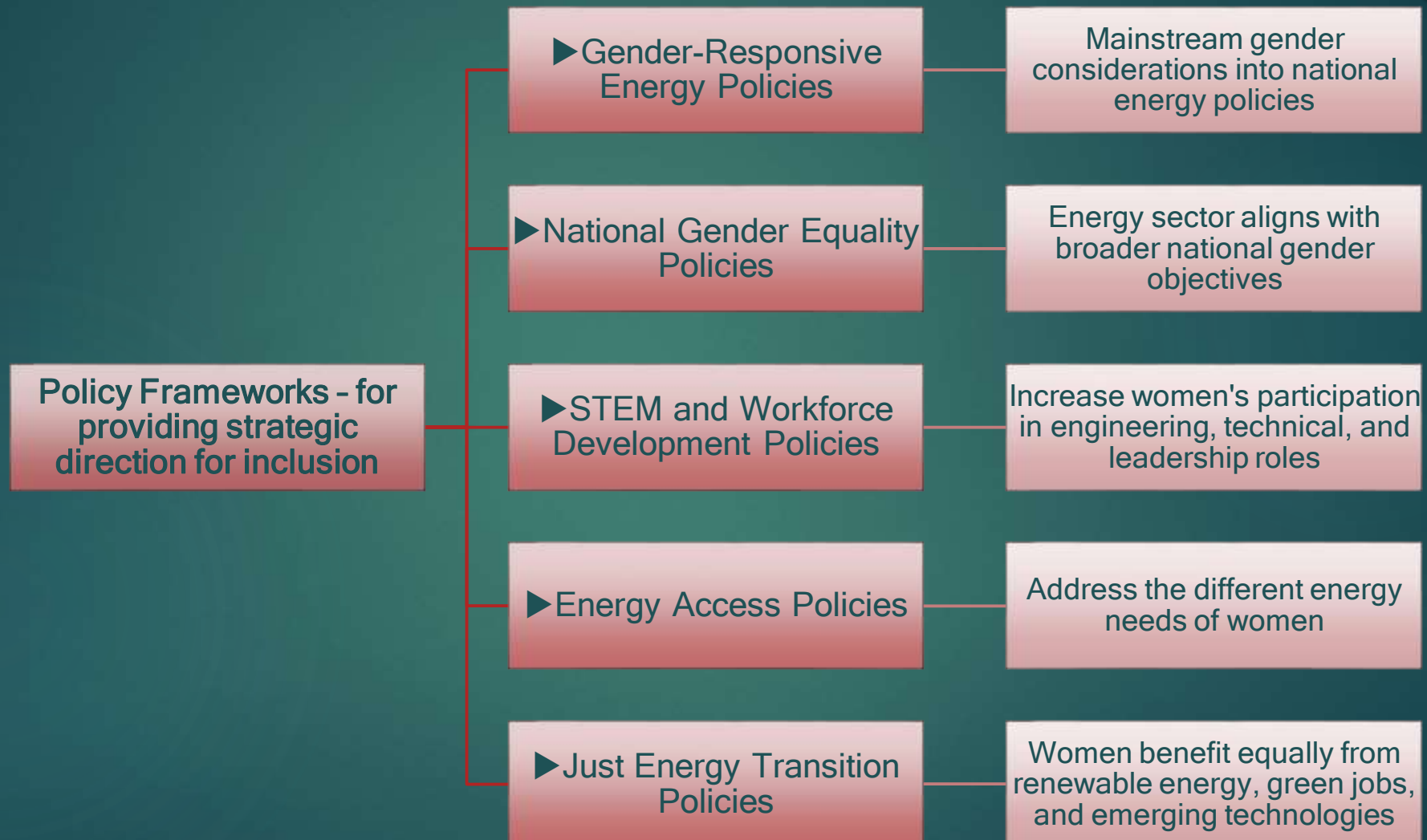
Many have integrated gender considerations into initiatives for energy access, rural electrification, and clean cooking, gaps remain in energy governance, workforce participation, leadership representation, and institutional accountability

To address these gaps, a comprehensive gender inclusive framework is needed

How to Make Energy Sector More Inclusive?



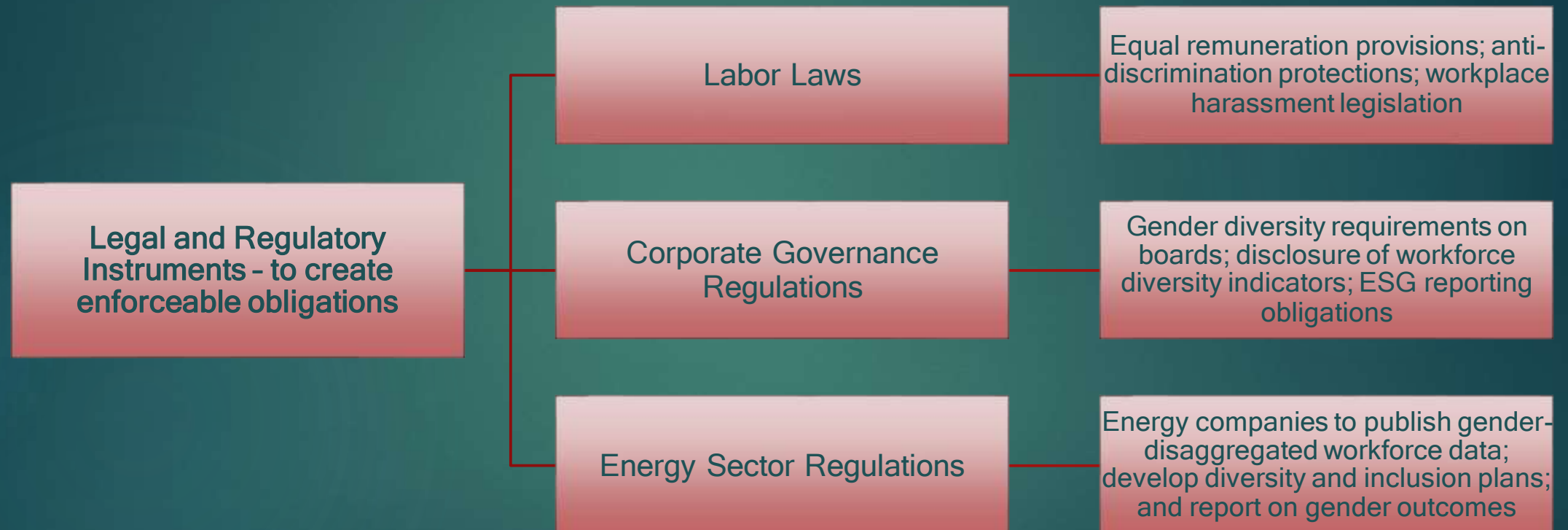
Energy Sector More Inclusive (contd.)



Energy Sector More Inclusive (contd.)



Energy Sector More Inclusive (contd.)



Gender-Responsive Energy Planning Tools

Tool	Policy (What to Achieve)	Guidelines (How to Implement)	Regulation (Enforcement & Accountability)
Gender Impact Assessment (GIA)	Identifies gender issues to be addressed	Guides project design	Can be made mandatory
Gender Budgeting Framework (GBF)	Allocates resources to gender objectives	Guides budget preparation	Can be required for reporting
Gender Action Plan (GAP)	Converts policy goals into actions	Provides implementation roadmap	Can be required by regulators
Social Inclusion Framework (SIF)	Establishes inclusion commitments	Guides stakeholder engagement	Supports compliance requirements
Diversity, Equity, and Inclusion (DEI) Strategy	Sets workforce diversity goals	Guides HR practices	Supports disclosure obligations
Gender Audit (GA)	Assesses policy effectiveness	Evaluates institutional performance	Can be mandated periodically
Monitoring & Enforcement (M&E) Framework	Measures policy outcomes	Tracks implementation progress	Enables regulatory monitoring

Conclusion

- ▶ Women are underrepresented in the SAARC region, despite its benefits for governance, operational performance, and energy access
- ▶ Main challenge - absence of mechanisms to translate commitments into measurable results
- ▶ Creating a gender-inclusive energy sector demands a systematic governance framework built on three mutually reinforcing pillars: **policy frameworks, institutional guidelines, and legal and regulatory instruments**
- ▶ Mandate the use of GIAs during the design and appraisal of all major energy projects
- ▶ Energy ministries, regulators, utilities, and project developers should be required to prepare GAPS with measurable targets for women's
- ▶ SIFs should further ensure that women from marginalized, rural, and disadvantaged communities are included in energy access, entrepreneurship, and workforce initiatives
- ▶ At the institutional level, DEI strategies should be adopted to address workplace barriers, promote equal opportunities, and create safe and supportive work environments
- ▶ Regular GA should be conducted to assess organizational performance, identify gaps, and strengthen accountability mechanisms
- ▶ Strong M&E framework with gender-disaggregated indicators should be developed to track progress and inform policy adjustments

Conclusion (contd.)

- ▶ A strong political commitment and clear accountability mechanisms are critical
- ▶ Governments should set mandates to track gender goals in energy, using transparent methods, a dedicated budget, and stakeholder engagement for fair and just results
- ▶ Without structural and governance reforms, women's participation in the energy sector will remain limited to symbolic or peripheral roles

Changing Social Norms

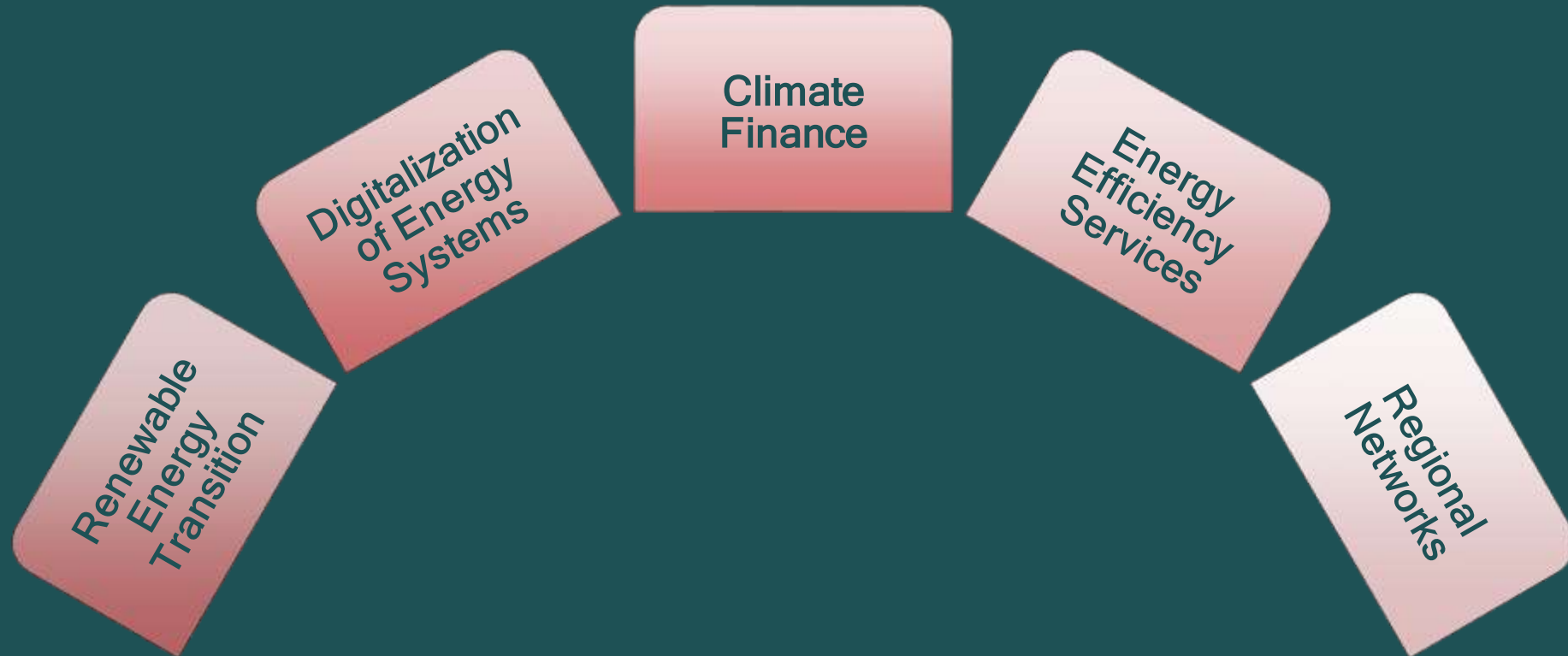
- ▶ Promoting gender inclusion requires a comprehensive strategy that addresses systemic structures, cultural representations, and behavioral patterns
- ▶ Effective change relies on community-driven narratives that combine personal stories with data
- ▶ Training programs should be tailored to local languages and cultures, led by female trainers, especially in conservative areas
- ▶ Men should be encouraged to support gender equity by challenging toxic masculinity
- ▶ Public awareness campaigns, community engagement, and employer commitments can gradually normalize women's participation across all levels of the energy value chain

Conclusion (contd.)

- ▶ Provincial governments in Pakistan can play a vital role in promoting gender inclusion in the energy sector
- ▶ A practical approach is for provinces to focus on implementation, workforce development, and institutional mainstreaming, while the federal government provides the overarching policy framework
- ▶ Pakistan's Gender Inclusive Energy Policy Framework could resemble the Banking Equality Policy, requiring energy stakeholders to implement specific gender-mainstreaming targets and accountability measures rather than relying solely on general policy commitments

Emerging Opportunities

Energy sector is transforming, creating new opportunities for gender inclusion that weren't possible in the traditional industry



Strategic Importance of Inclusive Energy Policies

33

- ▶ Increasing women's participation in the energy sector is not only a social equity issue but an economic and governance imperative
- ▶ Inclusive energy systems improve institutional responsiveness, workforce diversity, consumer engagement, and long-term sustainability planning

To transform women from energy beneficiaries into active participants, professionals, entrepreneurs, leaders, and decision-makers across the energy value chain

Thank You