



TOOLBOX

Gender Equality and Inclusivity in Southeast Asia's Energy Workforce

TABLE OF CONTENTS

I. Executive Summary	6
II. Introduction: Gender equality in the global and regional context	16
a. ASEAN Labour Force and Energy Workforce Gaps	17
b. Education and STEM Pipeline in ASEAN	18
c. Finance, Entrepreneurship and Green Talent	19
d. ASEAN Policy Architecture and Why This Toolbox Now	19
e. Toolbox structure and purpose	20
III. Barriers to women's participation in the ASEAN energy sector	22
a. Cluster A: Policy, Data and Institutional Architecture	24
b. Cluster B: Education, STEM and the Talent Pipeline	25
c. Cluster C: Recruitment, Entry and Workplace Safety	27
d. Cluster D: Retention, Flexibility and the Care Economy	28
e. Cluster E: Leadership, Decision-Making and Visibility	29
f. Cluster F: Monitoring, Finance and Accountability	30
IV. Strategic Actions by Stakeholder Groups	32
a. Governments and Regulators	33
b. Companies and Employers	40
c. Educational Institutions and Training Centres	46
d. Regional, Multilateral and Development Organisations	52
e. Professional Networks, NGOs and Grassroot Workforce Initiatives	56
V. Looking Ahead	62

Acknowledgement

This toolbox was developed under the Equality in Energy Transitions Initiative of the Clean Energy Ministerial (CEM), in partnership with the Tara Climate Foundation, in support of advancing gender equality and inclusion in energy employment across Southeast Asia. It was written by Azadeh Badiejjaryani, Scientific Project Manager at the Austrian Society for Environment and Technology (ÖGUT) and Secretary of the Equality in Energy Transitions Initiative.

Deepest appreciation is extended to Aldilla Noor Rakhiemah, Indira Pradnyaswari, Nathania Azalia, and Auliya Febriyanti of the ASEAN Centre for Energy (ACE) and its ASEAN Climate Change and Energy Project (ACCEPT), and to Kenneth Bernard Hizon and Marie Antoinette Bangabang of Oxfam Pilipinas, for their invaluable contributions in shaping the content and detailed review of this toolbox.

Sincere gratitude is also expressed to all participants of ASEAN Energy and Gender Week 2026, and in particular of the workshop “Driving Gender Equality and Inclusion in Energy Employment,” held in Manila on 31 March 2026. The event brought together over 60 key stakeholders from governments, regional institutions, industry, and civil society. Their insights on structural barriers, regional priorities, good practices, and practical solutions laid the foundation for this toolbox and guided its direction. Appreciation is further extended to the Department of Energy of the Philippines for hosting the event under the country’s ASEAN Chairship.

Special recognition also goes to the workshop moderators, whose facilitation ensured rich and productive discussions: Kalayan Constantino (Tara Climate Foundation), Aldilla Noor Rakhiemah, Indira Pradnyaswari, and Auliya Febriyanti (ACE), Badariah Yosiyana and Shikha Bhasin (CEM), Kenneth Bernard Hizon (Oxfam Pilipinas), and Juliette Denis-Senez (International Energy Agency).

Thanks are also due to Erin Crum for the copy edit and Ailette Córdova and Azucena López for the graphic design and layout of this toolbox.

About CEM

The Clean Energy Ministerial (CEM) is a high-level global forum to promote policies and programmes that advance clean energy technology, to share lessons learned and best practices, and to encourage the transition to a global clean energy economy. Initiatives are based on areas of common interest among participating governments and other stakeholders. The CEM brings together a community of the world's largest and leading countries, companies and international experts to achieve one mission – accelerate clean energy transitions.



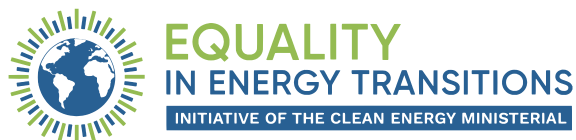
About the Tara Climate Foundation

Tara Climate Foundation is an Asia-based philanthropic organisation established in 2021 and headquartered in Singapore. Its mission is to accelerate Asia's just energy transition as the cornerstone of a thriving and more sustainable future for the region. Supporting close to 400 partners across 12 Asian geographies — including think tanks, research institutes, advisory groups, and industry associations — Tara provides grants, convenes stakeholders, and facilitates knowledge-sharing to advance clean energy development, drive clean industrialisation, and enable a people-centred energy transition, underpinned by a strong commitment to supporting sustainable finance, climate goals, and corporate alignment.



About CEM Equality in Energy Transitions Initiative

The Equality in Energy Transitions Initiative (EETI) is a global network of 12 governments jointly operating under the Clean Energy Ministerial (CEM) and the Technology Collaboration Programme (TCP) of the International Energy Agency (IEA). EETI aims to advance gender equality and women's participation in the clean energy transition. Co-chaired by Canada and Austria, the initiative brings together governments, international organisations, industry, research institutions and other stakeholders to address persistent gender gaps and barriers in the energy sector by promoting evidence-based policies, sharing good practices, strengthening networks, and supporting the integration of gender equality and diversity considerations into energy planning, employment, innovation and decision-making.



Executive Summary

The energy sector is among the least gender-balanced industries globally. Women make up close to 40% of the world's labour force, but hold around 22% of jobs in the conventional energy workforce and 32% in renewable energy. Representation narrows with seniority, with roughly one in five leadership roles in the sector held by a woman, and it narrows again at Csuite level. Differences in pay persist between women and men after role and skill level are taken into account. These patterns are long-standing and well documented across regions. At the same time, energy systems are undergoing profound transformation, creating a critical window to shape the workforce that will design, operate and sustain them. The composition, skills and diversity of that workforce are being determined today.

In Southeast Asia, women account for less than 20% of the energy workforce, with considerable variation across member states of the Association of Southeast Asian Nations (ASEAN). The difference emerges early in the pipeline: only 19.3% of women graduates hold a degree in a STEM (science, technology, engineering and mathematics) field, compared with 39.8% of men. The gap persists further along the career pathway, with women remaining underrepresented in senior and executive positions. ASEAN, with significant leadership and technical contributions from the ASEAN Centre for Energy (ACE), has developed a substantial body of work to address these persistent gaps. The 2022 ASEAN RE-Gender Roadmap set out recommendations for integrating gender considerations into renewable energy policy, complemented by further ACE-led research, gender-energy indicators and policy guidance, and regional capacity-building. The ASEAN Plan of Action for Energy Cooperation (APAEC) 2026 – 2030, endorsed in 2025, provides a framework for incorporation of gender equality, disability and social inclusion (GEDSI) within regional energy cooperation and planning.

This toolbox builds on ASEAN's growing body of work on gender equality and inclusion in the energy sector. It is designed for practitioners across the energy workforce system, including

governments and regulatory bodies; public and private energy companies and utilities; educational and training institutions; regional, multilateral and development organisations; civil society; and professional networks. It supports these stakeholders in translating existing commitments, evidence and experience into practical entry points for implementation. Structured for flexible use, the toolbox allows readers to start with the sections most relevant to their field of work and priorities rather than follow it from beginning to end.

The toolbox was developed by the Clean Energy Ministerial (CEM) in cooperation with the Tara Climate Foundation, drawing on the experience and resources of the CEM's Equality in Energy Transitions Initiative and its Equal by 30 campaign. It draws on insights from the full-day workshop, Driving Gender Equality and Inclusion in Energy Employment, held in Manila, Philippines, as part of the ASEAN Energy Gender Week 2026 convened by ACE. It also draws on existing research, reports and other evidence from ASEAN and beyond, as well as consultations and feedback from partners across the region.

Chapter II provides an overview of the global and regional status of women's participation in the energy sector. Chapter III examines the barriers that shape participation across the pipeline, from education and entry through to retention and leadership. These barriers are grouped into thematic clusters covering the policy and institutional environment, education and training, recruitment and workplace conditions, retention and the care economy, progression into leadership, and the systems through which progress is measured and financed. The barriers are presented as conditions to be assessed in context, rather than as characteristics assumed to apply everywhere, as their prevalence varies across member states and organisations. Each barrier is assigned a short code that recurs throughout the later chapters, allowing readers to trace constraints identified in their own setting directly to the measures designed to address them.

WHERE EACH BARRIER ACTS ACROSS STAKEHOLDER GROUPS

This matrix maps all 21 barriers, grouped into six colour-coded clusters, against the five stakeholder groups defined in Chapter IV. Each icon marks a group already acting on that barrier, since most barriers always need more than one group working to close the gap for good.

Cluster related to coded Barriers

- A** Policy, data and institutional architecture
- B** Education, STEM and the talent pipeline
- C** Recruitment, entry and workplace safety
- D** Retention, flexibility and the care economy
- E** Leadership, decision-making and visibility
- F** Monitoring, finance and accountability

Stakeholder groups

-  Governments and regulators
-  Companies and employers
-  Educational institutions and training centres
-  Regional, multilateral and development organisations
-  Professional networks, NGOs and grassroots initiatives

Code and Barriers

Stakeholder groups

						
A1	Gender-blind energy policy	✓				✓
A2	Missing sex-disaggregated data	✓	✓	✓	✓	✓
A3	Limited institutionalisation of Gender Equality, Diversity and Inclusion commitments	✓	✓	✓	✓	✓
A4	Limited inter-ministerial coordination mechanisms	✓			✓	
B1	Gendered STEM attitudes and stereotyping	✓	✓	✓		✓
B2	Limited gender-responsive pedagogy				✓	
B3	Program design and institutional access gaps	✓			✓	
C1	Recruitment and hiring biases	✓	✓	✓		
C2	Workplace safety and accessibility gaps	✓	✓	✓		
C3	Legal compliance gaps	✓	✓			
D1	Unpaid care burden	✓	✓	✓		
D2	Care infrastructure gaps	✓	✓			
D3	Glass ceiling in promotion	✓	✓			✓
D4	Organisational culture and resistance to change		✓	✓		
E1	Recognition justice deficit		✓	✓		✓
E2	Limited mentoring and sponsorship opportunities		✓	✓		✓
E3	Internalised psychological barriers		✓	✓		✓
F1	Unequal access to financing	✓	✓		✓	
F2	Gap in standardized regional monitoring and evaluation framework	✓	✓		✓	✓
F3	Gender-responsive budgeting gaps in the energy sector	✓	✓		✓	
F4	Timing and depth of gender analysis in energy programs	✓			✓	✓

Chapter IV sets out strategic actions to address the identified barriers, organised across five stakeholder-group sections: governments and regulators; companies and employers; educational institutions and training centres; regional, multilateral and development organisations; and professional networks, nongovernmental organisations (NGOs) and grassroots workforce initiatives. Each section follows a common four-phase framework, progressing from assessment and diagnosis through design and commitment to implementation, and finally to monitoring and

review. Individual steps use a consistent format, identifying the relevant pipeline stage, the measure, the rationale, the barriers it addresses and a short checklist to support implementation review. This phased structure allows organisations to engage at the point that best reflects their current position, while the shared format makes it easier to compare how different stakeholders can contribute to addressing the same barrier. Because responsibility for a single constraint often lies across several stakeholder groups, the barrier code also allows readers to trace the full range of relevant measures across the five groups.

Barriers to Gender Equality and Inclusivity in Southeast Asia's Energy Workforce

This infographic captures 6 clusters of barriers identified in this report, and highlights the different stakeholder groups that can help tackle these.

A: Policy, Data and Institutional Architecture

The region has already put real foundations in place: a CEDAW committee in Singapore, gender focal points in the Philippines, and the equality secretariat of Timor-Leste. What is missing is bringing them into each sector strategy, energy included.

Stakeholder



4.2%
of 385 energy policies in Asia-Pacific (2015–2022) included meaningful gender content



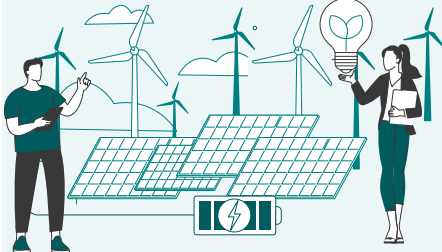
B: Education, STEM and the talent pipeline

Across ASEAN, women don't just keep pace with men in STEM — they often outperform them. Yet twice as many boys go on to become engineers. The gap isn't in ability; it's in what happens to that ability once school ends.

Stakeholder



Across ASEAN
19.3%
of women graduates hold a STEM degree, compared with 39.8% of men.



↓ Globally, across more than two-thirds of countries, the share of women studying engineering, manufacturing, construction or ICT is below 25%.

C: Recruitment, entry and workplace safety

As of 2018, seven ASEAN Member States had laws addressing workplace sexual harassment — but only one extended that same protection into education. The legal floor that should make entry safe is still being built.

Stakeholder



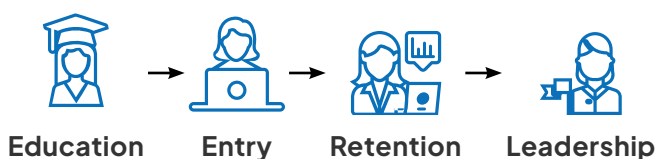
Only 40%
of East Asian and Pacific countries have equal pay laws



In ASEAN, women in professional, scientific and technical occupations earn as little as 68 per cent of what men earn

The pipeline

The pipeline-stage tag ties every step back to the same four-stage pipeline introduced in the regional context chapter.



Five stakeholder groups



D: Retention, flexibility and the care economy

Even after accounting for skill level, women in the energy sector earn 20% less than their male counterparts — a gap qualifications alone can't explain, and one that widens further under the weight of unpaid care work most career structures were never designed around.

Stakeholder



Women spend

2–5 times more

on unpaid care work than men across ESCAP member states



At Indonesia's Pertamina, women's leadership share rose from 14% to 18.4% in three years — proof the glass ceiling moves when it's pushed.

E: Leadership, decision-making and visibility

At current rates of change, gender parity in the region's environmental and energy ministries is still 162 years away. As of 2025, only two energy ministries across ESCAP member states are led by a woman.

Stakeholder



18%

of management roles in renewable energy are held by women.



Only 15%

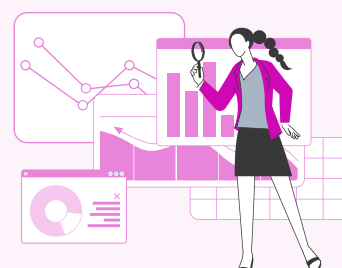
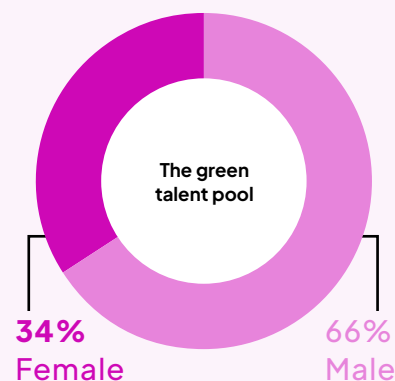
make it to senior management.

A 2024 survey of 88 people across nine ASEAN countries (69% women, most in the energy sector) found just 13% had reached senior level, and only 3% C-suite.

F: Monitoring, finance and accountability

Only 18 per cent of surveyed organisations analyse their portfolios by gender, and fewer than 10% consult women when designing business development services. The financing gap starts with who gets asked in the first place.

Stakeholder



Women's labour supply isn't meeting green job demand even where financial incentive exists.

Stakeholder group	1. Assess and diagnose	2. Design and commit	3. Implement and enable	4. Monitor, evaluate and learn
Governments and regulators	1.1 National gender audit of energy policy and institutions 1.2 Map women's progression across the workforce pipeline	2.1 GEDSI in national energy policy and planning documents 2.2 Interministerial gender equality, diversity and inclusivity (GEDI) coordination mechanisms 2.3 Gender-responsive workforce commitments in Nationally Determined Contributions (NDCs) and climate plans	3.1 GEDI focal points in all energy sector bodies 3.2 Sex-disaggregated data collection and reporting 3.3 Gender-responsive design and funding of energy workforce programmes	4.1 National energy-gender monitoring and evaluation framework aligned with APAEC 4.2 Regular gender progress reviews of energy policy
Companies and employers	1.1 Workplace gender audit using a structured framework 1.2 Mapping of gender representation across career stages	2.1 Gender action plan development and adoption 2.2 Mentoring and sponsorship for women in technical roles 2.3 Human resources policy revision to remove structural barriers	3.1 Inclusive recruitment practices 3.2 Care infrastructure and flexible working 3.3 GEDI competencies in management and leadership development	4.1 Annual GEDI progress report publication
Educational institutions and training centres	1.1 Mapping of gender representation across the education and training pipeline 1.2 Institutional gender audit of faculties and department	2.1 Gender-responsive pedagogy across STEM and energy programmes 2.2 Gender-responsive redesign of energy and technical and vocational education and training (TVET) curricula	3.1 Scholarships and mentoring for women in energy and STEM programmes 3.2 Industry-academia-TVET partnerships for inclusive workforce pathways 3.3 Engagement with students on gender norms and leadership identity	4.1 Tracking of outcomes from enrolment to career entry 4.2 Self-assessment of the institutional GEDI progress

Stakeholder group	1. Assess and diagnose	2. Design and commit	3. Implement and enable	4. Monitor, evaluate and learn
Regional, multilateral and development organisations	1.1 Mapping of existing gender-energy financing and technical assistance	2.1 Alignment with a shared regional reference gender framework 2.2 Targeting GEDI in energy workforce via financing instruments	3.1 Technical assistance and peer exchange with other key decision-makers and stakeholders	4.1 Contribution and use of standardised and shared regional indicators
Professional networks, NGOs and grassroots initiatives	1.1 Identification of structural gaps in support for women in the workforce	2.1 Design or strengthening of women's professional network	3.1 Cross-organisational mentoring and sponsorship 3.2 Advocacy and accountability mechanisms for GEDI implementation	4.1 Tracking of member career outcomes and network reach

Strategic actions by stakeholder group and implementation phase, as set out in Chapter IV.

Examples from across ASEAN are included throughout the toolbox under the heading of “ASEAN in practice”. They span all five stakeholder groups and showcase measures already being implemented across the region: national ministries integrating gender considerations into energy planning, budgeting and reporting; state-owned and private energy companies advancing leadership development and workplace reforms; universities and training institutions using institutional assessments to inform curricula and faculty measures; regional bodies and development partners facilitating knowledge exchange and integrating gender criteria into programme design; and professional and youth networks strengthening mentoring, visibility and peer support. Each example outlines what was done, who led it, and what it illustrates. Together, they provide concrete reference points for practitioners considering similar measures in their own institutional or national context, while recognising that approaches and enabling conditions will differ across settings.

Chapter V looks ahead to possible areas for continued action. Progress on women's participation in the energy sector has been

gradual across ASEAN, while the region's energy systems and workforce continue to evolve. Existing regional, multilateral and international platforms offer opportunities for further exchange, visibility and collaboration.

Each stakeholder group can use the toolbox according to its role and context. Governments and regulators can review policies, data systems and coordination mechanisms to identify gaps in mandates, resources or accountability. Companies and employers can assess workplace practices and develop gender action plans with measurable targets. Educational institutions and training centres can examine curricula, teaching approaches and pathways into employment. Regional, multilateral and development organisations can align programme design with existing regional frameworks and avoid creating parallel instruments. Professional networks and NGOs can identify structural gaps in support for their members and strengthen mentoring, visibility and advocacy accordingly. Across all stakeholder groups, the toolbox is intended as a practical resource that can support national and institutional priorities within their respective context.

Key Definitions

TERM	DEFINITION
Gender Equality	Gender equality means that women, men, and people of all genders have equal rights, responsibilities and opportunities, and that these do not depend on their sex or gender. It does not mean women and men are the same; it means their interests, needs and priorities are equally considered, and they can participate and benefit on equal terms in all areas of life (law, economy, politics, family).
Diversity	In Organisational and policy practice, diversity refers to the presence of differences within a given setting or social group, especially with respect to the values, attitudes, cultural perspectives, beliefs, ethnic background, sexual orientation, gender identity, skills, knowledge and life experiences of each individual in any group of people.
Inclusivity/ Inclusion	Inclusivity or inclusion describes the quality of the environment and practices that allow diverse individuals to participate fully, feel respected, and achieve on equal terms.
Social Inclusion	Social inclusion refers to processes and outcomes that ensure all people, especially those at risk of poverty, discrimination or exclusion, can participate fully in economic, social, political and cultural life, and can enjoy a decent standard of living and well-being. Social inclusion goes beyond non-discrimination and requires proactive measures to bring (historically) marginalised groups into mainstream institutions and opportunities.
Gender Equality, Diversity and Inclusion (GEDI)	Gender equality, diversity and inclusion are related but distinct concepts. The framework recognises equal rights, responsibilities and opportunities for people of all genders, the presence of differences within a given setting, and the extent to which people with different identities feel respected, are treated fairly and have equal access to decision-making and opportunities. This framework is mostly focused on workplaces, employment and Organisational culture.
Gender Equality, Disability and Social Inclusion (GEDSI)	Gender equality, disability and social inclusion (GEDSI) is an intersectional framing. It refers to measures that enable people from diverse backgrounds, including women and gender-diverse people, people with disabilities, and those experiencing other forms of marginalisation, to participate meaningfully and on an equal footing in accessing, using, shaping, contributing to and benefiting from the design, implementation and governance of policies, programmes and projects. The specific term has been used in the ASEAN Plan of Action for Energy Cooperation (APAEC) 2026–2030 from the Association of Southeast Asian Nations.
Pipeline (women's energy workforce pipeline)	A four-stage model – education, entry, retention and leadership – adapted from the “leaky pipeline” concept. This model is used throughout the toolbox to describe the sequential and compounding nature of women's exclusion, where losses at an earlier stage reduce the pool available at each subsequent stage.

TERM	DEFINITION
Leaky pipeline	A metaphor describing the continuous, stage-by-stage attrition of women from a career or education pathway (e.g. enrolment in STEM fields [science, technology, engineering and mathematics] → graduation → sector entry → seniority), producing a widening “scissors” gap between male and female representation at each successive career stage ¹ .
Glass ceiling	The “ glass ceiling ” is a metaphor to describe an invisible barrier that prevents women and other marginalised groups from advancing to top leadership positions, despite apparent formal equality of opportunity. It refers to patterns in which women are present in lower and mid-level roles but remain significantly under-represented in senior management and executive positions, due to biased evaluation criteria, exclusion from influential networks, informal norms, and Organisational cultures that privilege men.
Recognition justice	One of three interlocking dimensions of energy justice established in the energy justice literature the principle that certain groups’ knowledge, expertise and legitimacy as participants must be equally valued and not systematically dismissed or rendered invisible. Distinguished from distributive justice (fair allocation of the benefits and burdens of energy systems) and procedural justice (fair, meaningful participation in energy decision-making) ² .
Gender-blind policy	A gender-blind policy is one that ignores or assumes away gender differences and power relations, treating all people as if they were similarly situated regardless of gender.
Gender Integration Continuum	The Gender Integration Continuum is a diagnostic framework that classifies policies and programs according to how they address gender. At one end are gender-blind and gender-exploitative approaches (which ignore or reinforce harmful norms); in the middle are gender-sensitive or gender-accommodating approaches (which recognise gender differences but work around existing norms); at the other end are gender-transformative approaches, which actively seek to change unequal gender norms and power relations.
Gender-transformative	Gender transformative describes interventions that do not just acknowledge gender differences or mitigate their effects, but deliberately aim to transform the underlying norms, roles and power relations that perpetuate inequality.
Gender mainstreaming	Gender mainstreaming means assessing the implications for women and men of any planned action, legislation, policies or programs, in all areas and at all levels, and integrating women’s and men’s concerns and experiences into the design, implementation, monitoring and evaluation of policies and programs.

¹ Blickenstaff, J.C. (2005), Women and science careers: Leaky pipeline or gender filter?, Gender and Education, Vol. 17, No. 4, pp. 369–386, <https://doi.org/10.1080/09540250500145072>

² Jenkins, K. et al. (2016), Energy justice: A conceptual review, Energy Research and Social Science, Vol. 11, pp. 174–182, <https://doi.org/10.1016/j.erss.2015.10.004>

TERM	DEFINITION
Gender-responsive budgeting	Gender-responsive budgeting (GRB) is a public finance approach that integrates a gender perspective into the budget cycle. It examines how budget allocations and revenue measures differentially affect women and men, and aims to align public spending and taxation with gender-equality objectives.
Gender-responsive pedagogy (GRP)	Gender-responsive pedagogy is a teaching approach that deliberately considers the different learning needs, experiences and constraints of male and female learners, and seeks to create classroom environments and teaching practices that promote gender equality.
Care economy/unpaid care burden	The care economy encompasses the paid and unpaid work involved in caring for people and maintaining households, such as childcare, eldercare, cooking, cleaning and collecting water or fuel. Women perform a disproportionate share of unpaid care work worldwide , which is largely absent from national accounts and statistics. This unpaid care burden constrains women's time and mobility, shaping their participation in education and employment, especially in sectors requiring long or irregular hours or travel.
Intersectionality (implicit in GEDI and GEDSI framing)	A framework, coined by Crenshaw (1989), holding that inequality interacts with other axes of disadvantage or privileges such as gender, age, income, race or ethnicity, education, to produce distinct, compounding experiences that cannot be understood or addressed by treating such axes separately and as a homogeneous category.
Just and inclusive energy transition	A framing grounded in the energy justice literature, holding that an energy transition cannot be considered legitimate or effective unless its benefits, costs, and participation are distributed and recognised fairly across distributive, procedural, and recognition justice dimensions ³ .
Gender Action Plan (GAP)	A Gender Action Plan (GAP) is a structured document that sets out specific objectives, actions, responsibilities, timelines and indicators for promoting gender equality within a project, program or institution.

NOTE ON TERMINOLOGY

Gender Equality, Diversity and Inclusion (GEDI) is used as the primary term throughout this toolbox. The toolbox focuses on advancing women's participation and leadership in the energy workforce, while recognising that women's experiences are shaped by intersecting identities and circumstances, such as age, education, socioeconomic status, geographic location, migration background, and other factors that may influence participation and opportunities.

Gender Equality, Disability and Social Inclusion (GEDSI) is the terminology used in the ASEAN Plan of Action for Energy Cooperation (APAEC) 2026–2030. This toolbox retains the use of GEDSI when referring specifically to APAEC and other frameworks or commitments that adopt this terminology.

Given the toolbox's focus on women's participation in the energy workforce, GEDI provides the primary framing lens used throughout. Through this focus, the toolbox contributes to broader GEDSI objectives by addressing barriers to participation, inclusion, and advancement while recognising the diversity of women's experiences.

³ Jenkins, K. et al. (2016), "Energy justice: A conceptual review," *Energy Research and Social Science*, Vol. 11, pp. 174–182, <https://doi.org/10.1016/j.erss.2015.10.004>

Abbreviations

ABBREVIATION	FULL NAME
ACE	ASEAN Centre for Energy
ACWC	ASEAN Commission on the Promotion and Protection of the Rights of Women and Children
ADB	Asian Development Bank
AEDS	ASEAN Energy Database System
AMS	ASEAN Member States
APAEC	ASEAN Plan of Action for Energy Cooperation
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
COP	United Nations Climate Change Conference of the Parties
DOE	(Philippines) Department of Energy
EIGE	European Institute for Gender Equality
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
ESG	Environmental, Social and Governance
GAD	Gender and Development
GAP	Gender Action Plan
GEDI	Gender Equality, Diversity and Inclusion
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit/ German Agency for International Cooperation

ABBREVIATION	FULL NAME
GRP	Gender-Responsive Pedagogy
HR	Human Resources
IEA	International Energy Agency
ILO	International Labour Organization
IMF	International Monetary Fund
INASP	International Network for Advancing Science and Policy
ITC	Institute of Technology Cambodia
IUCN	International Union for Conservation of Nature
M&E	Monitoring and Evaluation
NDC	Nationally Determined Contribution
OECD DAC	Organisation for Economic Co-operation and Development, Development Assistance Committee
SDG	Sustainable Development Goal
SOE	State-Owned Enterprise
STEM	Science, Technology, Engineering and Mathematics
TVET	Technical and Vocational Education and Training
USAID	United States Agency for International Development
WECF	Women Engage for a Common Future

Introduction: Gender equality in the global and regional context

The energy sector is, by any measure, one of the least gender-balanced industries in the world. Women make up close to 40 per cent of the global labour force, according to International Labour Organisation (ILO) data, yet account for only 22 per cent of the conventional energy workforce and 32 per cent of the renewable energy workforce globally. Even the more progressive renewable energy segment has not kept pace with sectors that require comparable training, skills, and experience: women occupy close to half of administrative positions in the sector and 35% of technical roles outside the STEM (science, technology, engineering and mathematics) fields, but only 28% of STEM-related positions. The pipeline narrows at every step upward. Women hold 18 per cent of management positions and just 15 per cent of senior management roles in renewable energy. In

The women in energy workforce pipeline describes the different stages of women's journey into and through the energy sector: education, entry into the workforce, retention, and leadership. This toolbox uses the pipeline approach to illustrate how barriers can accumulate over time. When women face challenges at an earlier stage, such as limited access to relevant education, difficulties entering the sector, or barriers to career progression, fewer women remain available to advance to the next stage. As a result, women's representation often decreases as roles become more senior.

the world's top 100 utilities, women account for around 4 per cent of executive board members, with a proportion below 4 per cent in the Asia-Pacific region.

This is not simply a question of representation. The International Energy Agency (IEA) has found that women in the energy sector earn 20 per cent less than their male counterparts, a gap that persists even after controlling for skill-level differences within companies. The World Economic Forum's Global Gender Gap Report 2022 finds that around one in five leadership roles in the energy sector is held by a woman, and that women hold a considerably smaller share of chief executive positions. International Union for Conservation of Nature (IUCN) 2024 data reported by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) puts the longer-term trajectory in stark relief: at current rates of change, it would take 162 years for women to reach gender parity in the world's leading environmental and energy ministries.

The consequences are not only borne by women. Evidence consistently shows that organisations and sectors that exclude women from technical and leadership roles underperform across multiple dimensions. IEA data shows that organisations with female leaders generate 30 per cent higher return on equity and 30 per cent lower earnings risk. McKinsey's research finds that companies in the top quartile for gender diversity in executive teams are 25 per cent more likely to have above-average profitability.

A 2022 study finds that companies with greater [board gender diversity](#) are 60 per cent more likely to reduce energy consumption intensity and 46 per cent more likely to reduce water use. The business case therefore reinforces the commitments set out below, which remain the primary basis for action.

The global normative framework anchoring this work is clear. The 1995 [Beijing Declaration](#) and Platform for Action established gender equality as a fundamental right and provides the foundational commitment to which all member states of the Association of Southeast Asian Nations (ASEAN

member states [AMS]) are party. The 2030 Agenda for Sustainable Development further links Sustainable Development Goal (SDG) 5 on gender equality and SDG 7 on affordable and clean energy as mutually reinforcing goals, and notably, SDG 7 remains one of the few development goals without a [dedicated gender indicator](#), a gap that [hampers monitoring and accountability](#) across the region.

This toolbox operates within that framework while focusing squarely on a specific and underserved dimension: increasing women's participation in the energy sector workforce, from education and entry through to retention and leadership.

ASEAN Labour Force and Energy Workforce Gaps

The gender gap in labour force participation is a foundational constraint on women's energy sector employment across ASEAN. In 2020, [male labour force participation](#) in ASEAN stood at 82 per cent of a male working-age population of 333.2 million; female participation was 67 per cent of a female working-age population of 334 million; a 15-percentage-point gap across the region's two nearly equally sized working-age cohorts. Country-level data shows the full range of variation: Cambodia leads with a female labour force participation rate of about 74%; Myanmar records about 41 per cent; Viet Nam stands at about 70 per cent; Indonesia at about 55 per cent; and Malaysia at [about 52 per cent](#). These are economy-wide figures. Countries with higher female participation rates tend to implement more progressive enabling policies, while lower-rate countries face more complex structural and cultural barriers, a pattern that shapes the different starting points practitioners will encounter across AMS.

Within the energy sector specifically, the data tells a consistent story of structural exclusion that compounds from education through to leadership. Across ASEAN, women account for [less than 20 per cent](#) of the energy workforce. This reflects a broader global trend: women represent only 16 per cent of the

[traditional energy workforce](#) worldwide. Even in renewable energy, which globally shows greater gender inclusivity, women account for [32 per cent](#) of the workforce, well below their share of the global labour force. In South and Southeast Asian countries including Indonesia, Thailand, and Viet Nam, women are severely underrepresented in electricity, gas, and steam supply sectors, and over-concentrated in manufacturing, education, and retail. The pattern within the sector is consistent: the higher and more technical the role, the smaller the share of women.

Across the region, the leadership gap remains the most acute dimension of exclusion. Despite growing participation of women in renewable energy in ASEAN, their representation in [senior leadership positions](#) remains limited, highlighting persistent barriers in career progression. As of 2025, only [two energy ministries](#) across ESCAP's member states are headed by a woman. A 2024 survey of 88 respondents across nine AMS, including 69 per cent women and 74 per cent respondents affiliated with the energy sector, found that only 13 per cent were at senior level and just 3 per cent [at C-suite level](#). These figures show that a substantial constituency of women already works in or adjacent to the energy sector but is not yet reflected in senior roles.

Education and STEM Pipeline in ASEAN



Labour force participation, 2020

82% of men **67%** of women

A 15-point gap across two nearly equal working-age populations — 333.2 million men, 334 million women.

The STEM and education pipeline is where this exclusion begins. Global data from more than two-thirds of countries show that the percentage of women studying engineering, manufacturing and construction, or [information and communications technology \(ICT\)](#) is [below 25%](#). [In ASEAN](#), 19.3 per cent of women graduates obtained a STEM degree, compared with 39.8 per cent of men graduates. Available data suggests Indonesia records the lowest women's STEM participation rate in ASEAN at [approximately 12 per cent](#). Globally, around [68 per cent of energy-focused university degrees](#) still concentrate on fossil fuels, and at current rates of change renewable energy degrees will not overtake fossil fuel degrees at universities worldwide [until 2107](#), a stark indication of how slowly curriculum transformation is proceeding.

The education pipeline problem is not primarily one of aptitude or interest. Assessment data bears this out: in ASEAN girls do not merely match boys, they often [outperform them](#) and still do not proceed into STEM careers. Yet [twice as many boys](#) go on to become engineers. [Societal norms and stereotypes](#) portray STEM education and careers as belonging to men, and these norms are reinforced at every level, from early schooling through university and into the workplace. Women are disproportionately channeled into [administrative and communications roles](#) within energy organisations even when they hold technical qualifications and face a documented pattern of being [perceived as less competent](#) than equally qualified male peers. The structural barriers compound: limited [female role models](#) in STEM teaching reinforce stereotypes; inadequate career guidance fails to connect women's demonstrated interest in sustainability with energy career pathways; and [informal professional networks](#) operate through social connections and sponsorship that systematically advantage men.

Finance, Entrepreneurship and Green Talent

The financial landscape reinforces the same structural exclusion. Women-led renewable energy businesses face compound [barriers to financing](#): collateral requirements favour immovable assets that women are less likely to hold; credit assessment methodologies built on formal employment records and digital footprints systematically disadvantage women entrepreneurs; and impact investors continue to treat gender as a social impact consideration rather than a business performance variable. Only 18 per cent of surveyed organisations perform [sex-disaggregated analysis](#) of portfolio business performance, and fewer than 10 per cent consult women when designing business development services. Land and property rights compound this: across the region, women face significant legal and customary barriers to land ownership and asset registration, limiting their capacity to provide collateral for enterprise financing, participate in distributed energy business models that require land rights, or access the property-backed credit that underpins energy entrepreneurship.

Southeast Asia accounts for [close to 20%](#) of global energy demand growth to 2035, with energy investment surpassing USD 100 billion in 2025 and transmission and distribution networks required to more than double in length by 2050.

The [green talent pool](#) is currently 66 per cent male and 34 per cent female globally; the [International Monetary Fund \(IMF\)](#) finds that women's wage premium for green jobs (12 per cent) exceeds men's (7 per cent), indicating that women's labour supply is not meeting green job demand even where financial incentives exist. Economies with greater gender equality transition faster and at lower cost: climate policies in more gender-inclusive economies are associated with [emission reductions](#) 2–4 percentage points larger than in less inclusive ones.



ASEAN Policy Architecture and Why This Toolbox Now

ASEAN's policy architecture has built real momentum over recent years, and this toolbox is designed to support practitioners in taking that momentum further. The ASEAN Gender Mainstreaming Strategic Framework 2021–2025 and the ASEAN Committee on Women Work Plan identify gender-responsive governance and leadership, and [women's economic empowerment](#) in the future of work, as explicit priorities. In August 2022, ACE published the ASEAN Renewable Energy Gender Roadmap, the most concrete regional instrument for advancing gender equality in the renewable energy sector,

identifying six persistent barriers and proposing a four-phase implementation framework. The Roadmap gave the region a clear starting point: database development; policy advocacy and [gender mainstreaming](#); monitoring and evaluation framework establishment; and policy implementation and oversight.

The ASEAN Plan of Action for [Energy Cooperation](#) (APAEC) 2026–2030, endorsed at the 43rd ASEAN Ministers on Energy Meeting in Kuala Lumpur in October 2025, is the strategic inflection point for this work. Its

theme, **“Advancing Regional Cooperation in Ensuring Energy Security and Accelerating Decarbonisation for a Just and Inclusive Energy Transition,”** for the first time formally integrates Gender Equality, Disability and Social Inclusion (GEDSI) into energy policy and planning. This builds on years of regional efforts, including initiatives led by ACE and its partners, that have strengthened knowledge, capacity building, policy dialogue, and evidence generation on gender equality in the energy sector. The [ASEAN RE-Gender Roadmap](#) has contributed to this process by providing important evidence and recommendations on advancing gender equality in the renewable energy sector. These efforts are reflected in APAEC 2026–2030 under the Renewable Energy Programme Operational Strategy 3, [Action Plan 3.3](#): **“Promote the integration of GEDSI into energy policy and planning to support an inclusive energy transition and improve energy access.”**

This toolbox responds to the priorities reflected in APAEC 2026–2030 by bringing together

For the first time, APAEC 2026–2030 formally integrates gender equality into ASEAN’s energy policy and planning — endorsed at the 43rd ASEAN Ministers on Energy Meeting in October 2025, and the strategic inflection point this toolbox responds to.

evidence, regional experience and practical approaches for advancing women’s participation in the energy sector. It is intended for practitioners in governments, companies, universities, development organisations, and communities who are driving change on the ground. It provides a structured way to examine most common challenges along the pathway from classroom to boardroom in the region’s energy sector. Then it sets out phased actions by stakeholder groups to support the identification, implementation and monitoring of measures that can be adapted to different institutional and national contexts.

Toolbox structure and purpose

This toolbox supports practitioners who want to increase women’s participation in the ASEAN energy workforce, from education and entry through to retention and leadership.

Following on from this Chapter which sets the global and regional context and outlines the main gender equality, diversity and Inclusivity (GEDI) challenges in the energy workforce, the toolbox is structured as follows:

- Chapter III translates this context into a structured barrier library of 21 barriers, organise into six thematic clusters (A–F) and tagged by pipeline stage. The clusters organise barriers based on their underlying drivers and the type of action needed to address them.
- Chapter IV presents strategic actions, organise by stakeholder group, including governments and regulators; companies and employers; educational institutions and training Centres; regional and multilateral organisations and

development partners; and professional networks, nongovernmental organisations (NGOs) and grassroots workforce initiatives, each structured in four phases (assess and diagnose; design and commit; implement and enable; monitor, evaluate and learn).

- Chapter V highlights opportunities under APAEC 2026–2030 and related regional and international initiative that could support greater participation of women in the energy sector.

The toolbox draws on three complementary evidence streams. First, a [full-day workshop, “Driving Gender Equality and Inclusion in Energy Employment,”](#) convened in Manila as part of the ASEAN Energy Gender Week 2026, hosted by ACE in March–April 2026 with support from the World Bank, the Clean Energy Ministerial, Oxfam and the ASEAN Climate Change and Energy Project (ACCEPT)⁴. This [event brought participants](#) from AMS

governments, utilities, academia, civil society, and professional networks. Working sessions examined the barriers women face across the energy workforce pipeline, identified practical solutions and good practices, and asked participants directly what a useful toolbox would need to contain and which regional opportunities it should leverage. Second, consultations with key stakeholders across ASEAN complemented this work, conducted through written submissions of good practices, bilateral sessions and structured feedback on draft material. These supplied the applied examples used throughout the toolbox. Third, the toolbox is grounded in existing ASEAN and

international literature, drawing on academic research and on the work of multilateral and development organisations active on gender equality and energy. Together, these streams inform all chapters of this toolbox, from the framing presented here, through the barrier library and strategic actions, to the regional opportunities ahead.

Readers can either read the toolbox end-to-end or jump directly to the chapter most relevant to their role, using the barrier codes and pipeline tags as a navigation and cross-referencing tool along the way.

A NOTE ON SCOPE

This toolbox addresses women's participation in the formal, paid energy workforce, from technical and administrative roles through to leadership. It does not cover the substantial but often informal and unremunerated roles women play in managing household and community-level energy use and access, particularly in rural and off-grid settings. While these dimensions are interconnected and shape one another, they raise distinct challenges and require different policy and practical responses. Readers whose work focuses on energy access or community-based energy management are encouraged to complement this toolbox with resources that directly address these topics.



Photo credit: ASEAN Centre for Energy

This chapter sets the global and regional context the rest of the toolkit builds on — Chapter III turns it into a 21-barrier library, Chapter IV into actions by stakeholder group, and Chapter V into forward-looking opportunities under APAEC 2026–2030.

01 Global Gender Gaps in the Energy Sector

Women hold 40% of the global labour force, but just 4% of executive board seats at the world's top 100 utilities — below 4% in Asia-Pacific.

40% → 4%

02 ASEAN Labour Force & Energy Workforce

82% / 67%

Male vs female labour force participation, ASEAN 2020 — a 15-point gap. Women hold under 20% of the ASEAN energy workforce.

03 Education & STEM Pipeline in ASEAN

19.3% vs 39.8%

Share of ASEAN women vs men graduates holding a STEM degree — despite girls matching or outperforming boys in assessments.

04 Finance, Entrepreneurship & Green Talent

66% / 34%

The global green talent pool, male vs female, even though women's green-job wage premium (12%) beats men's (7%).

05 ASEAN Policy Architecture & Why This Toolkit Now APAEC 2026–2030

First ASEAN energy policy to formally integrate gender equality — endorsed October 2025, 43rd ASEAN Ministers on Energy Meeting.

4 Detailed report of “Driving Gender Equality and Inclusion in Energy Employment” workshop held at the ASEAN Energy Gender Week 2026 can be found here: <https://www.cleanenergyministerial.org/resource/workshop-summary-document-driving-gender-equality-and-inclusion-in-energy-employment/>

Barriers to women's participation in the ASEAN energy sector

Understanding why women remain underrepresented across the energy sector pipeline, from classroom to leadership, requires more than a list of problems. At its core, this is an issue of inequality and power. Barriers are shaped not only by individual choices or institutional practices, but by the distribution of resources, opportunities, decision-making authority and influence across the energy system. Quantitative and qualitative studies have brought greater visibility to how gender norms and intersecting forms of inequality can shape who enters, progresses and has influence within the sector. The barriers documented below are structural, compounding and mutually reinforcing: a girl steered away from STEM at school is less likely to enter a technical energy role; a woman hired into a junior technical role but excluded from informal networks is less likely to be promoted; a woman passed over for leadership rarely becomes the role model who would have changed the next cohort's

choices. This chapter maps those challenges systematically, codes them for cross-reference throughout the toolbox and organises them thematically. The barrier clusters that follow are grouped by the stage at which they take effect and by the type of institution able to act on them, reflecting on the overarching lens of inequality and power. This keeps diagnosis and response connected, so that identifying a barrier also indicates where the lever to address it sits.

The prevalence and form of these barriers vary considerably across AMS, and across the employers, educational and training institutions, and other organisations operating within them. Therefore, the identified barriers are set out as conditions to be assessed in a given context rather than as issues assumed to be present in all of them. Users of this toolbox are encouraged to establish which barriers apply, and in what form, before selecting corresponding actions from Chapter IV.

Six barrier clusters are used throughout this toolbox; each assigned a letter code and colour:

A. Policy, data and institutional architecture

B. Education, STEM and the talent pipeline

C. Recruitment, entry and workplace safety

D. Retention, flexibility and the care economy

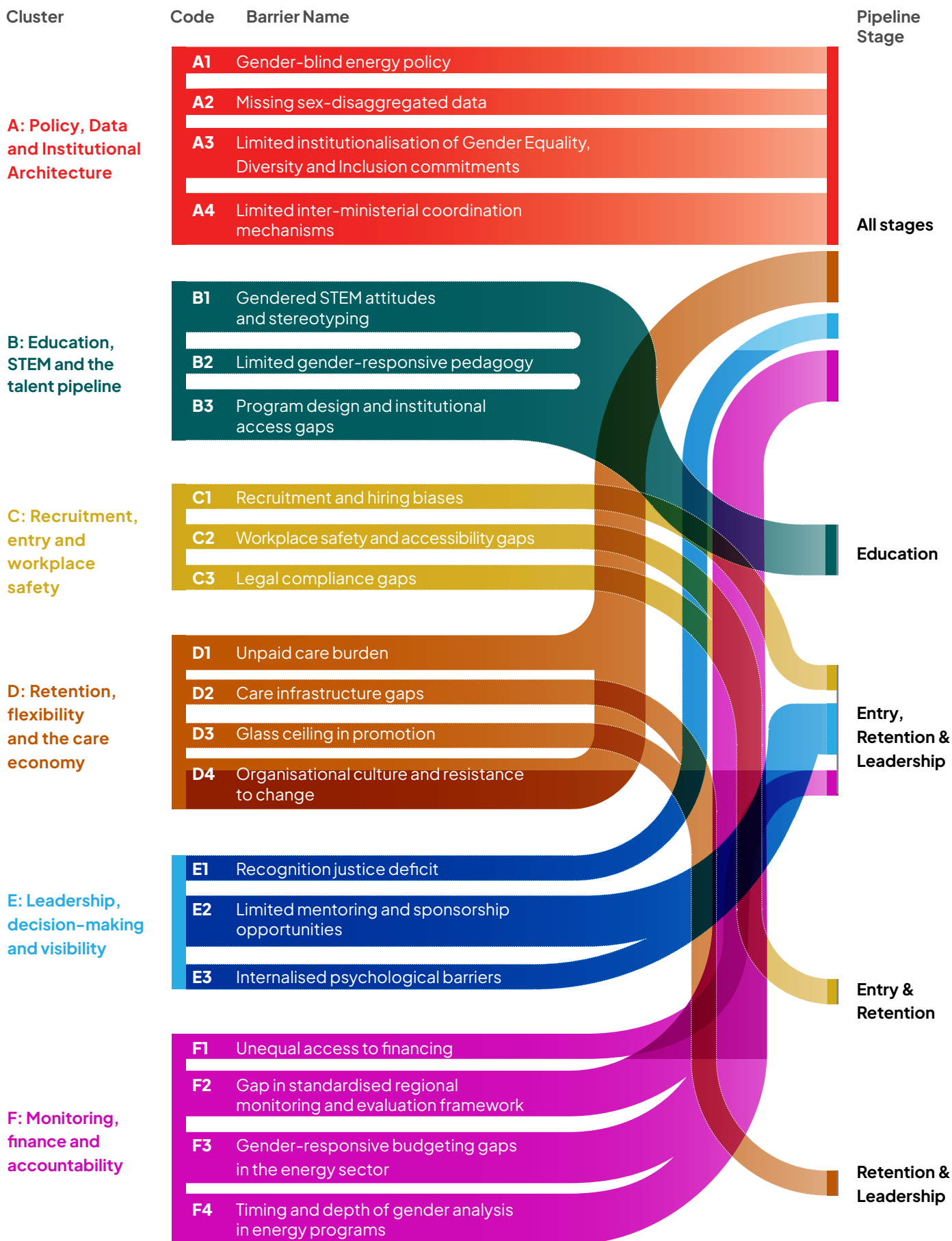
E. Leadership, decision-making and visibility

F. Monitoring, finance and accountability

Every barrier in this chapter is addressed by at least one stakeholder group, though the number of actions varies between barriers.

Where each barrier acts

Same data as pages 7– 9, reordered and expanded to show all 21 barrier names.



Policy, Data and Institutional Architecture



ACE has proposed gender-energy indicators across five dimensions — a starting point for regional data that today remains limited, often aggregated only at household level, and in places outdated.”

Policy mandates, data systems, and institutional structures provide the foundation for advancing gender equality, shaping the enabling environment in which action can take place. In the energy sector, these include gender-responsive policies and strategies, sex-disaggregated workforce data, and coordination mechanisms between relevant ministries.

ASEAN Member States have established foundations in this area, including Singapore’s

[Inter-Ministry Committee](#) on the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the Philippines’ Gender and Development [Focal Point Systems](#), and Timor-Leste’s coordination through its Secretariat of State for [Equality and Inclusion](#). What remains less developed is the integration of these foundations into sectoral strategies, including energy.

A1 Gender-blind energy policy:

This barrier refers to national energy policies that set targets, allocate resources, and regulate the sector without any reference to gender, treating the workforce, the decision-making structures, and the career pipeline as if they were gender-neutral when the evidence consistently shows they are not. A [gender-blind policy](#) is not simply one that omits women; it is one that makes gender inequality [structurally invisible](#), removing any institutional obligation to measure, address, or improve it.

A2 Missing sex-disaggregated data:

This barrier refers to the absence of data collected and reported separately for women and men, the basic statistical foundation required to understand where gender gaps exist, how large they are, and whether interventions are working. ACE has proposed [gender-energy indicators across five dimensions](#), while noting that regional energy data is often aggregated at household level and that available sex-disaggregated data remains limited and, in places, outdated. Collecting this data helps translate gender equality commitments into evidence-based, [meaningful targets](#), and [measurable progress](#).

A3 Limited institutionalisation of Gender Equality, Diversity and Inclusion commitments:

This barrier describes a pattern in which gender equality, diversity and inclusion commitments are advanced primarily through discrete

initiatives, externally funded programs, time-limited activities, or standalone units, without corresponding [integration into core policies](#), budgets, mandates and institutional structures. Such initiatives have played a significant role in building capacity, generating evidence and creating momentum across the region, and several have informed lasting policy and institutional change. The barrier lies not in the initiatives themselves but in the gap that can open between initiative-level activity and institutional continuity. Regional assessments have reached a similar conclusion, finding that without a comprehensive and systematic framework, efforts remain scattered and actions are often repetitive.⁵

A4 Limited inter-ministerial coordination mechanisms:

This barrier refers to the structural separation between the institutions that govern energy and those responsible for gender, climate, welfare, economic policy, creating institutional silos. That means neither ministry has the mandate or the relationship infrastructure to act on the overlap between their respective responsibilities.



Photo credit: ASEAN Centre for Energy

Energy ministries hold investment portfolios and regulatory power but rarely employ gender expertise at a level that shapes decisions; gender and women's affairs ministries [hold the expertise](#) but not the budgets or authority over energy sector programs. [Regional gender architecture](#) anticipates cross-sectoral coordination of this kind, with the ASEAN Committee on Women and the ASEAN Commission on the Promotion and Protection of the Rights of Women and Children identified as co-leads for gender mainstreaming across sectors.

CLUSTER B:

Education, STEM and the Talent Pipeline

The barriers that shape women's energy sector participation begin well before a first job application. Attitudes formed in school, reinforced through family expectations and media, and embedded in the design of training institutions determine whether women enter the sector's talent pipeline at all. It is important to distinguish between two different problems operating in sequence: the first is about who chooses to pursue technical pathways (shaped by socialisation and attitudes); the second is about how institutions are designed once women arrive (shaped by pedagogy and curriculum). Conflating them leads to interventions that address one while ignoring the other.

B1: Gendered STEM attitudes and stereotyping:

This barrier refers to the widespread social belief, carried through families, schools, media, and communities, that STEM fields are naturally male domains and that energy sector technical careers are not appropriate, suitable, or realistic options for women. The problem is not aptitude: it is the cultural framing of aptitude. Girls and young women who might otherwise enter technical energy pathways are discouraged from doing so by who they see (or do not see) in those roles, what they are told about where they belong, and the social cost of choosing a path that is [marked as unfeminine](#).

⁵ Lemus-Delgado, D. and C. Cerda (2025), "ASEAN, gender equality and women's empowerment in STEM", Asian Education and Development Studies, Vol. 14/2, pp. 299–313, <https://doi.org/10.1108/AEDS-07-2024-0138>

B2: Limited gender-responsive pedagogy:

This barrier concerns pedagogical approaches across the institutions that prepare people for careers in the energy sector, including universities, technical institutes, and even where legal provisions exist in AMS, enforcement may be weak, and the extent to which educators are equipped to apply gender-responsive teaching practices. Gender-responsive pedagogy involves recognising and addressing gender-based differences in learning experiences, expectations, and participation, while ensuring that teaching methods, assessment approaches, and [classroom environments](#) enable all students to participate and succeed. Evidence from across the region indicates that female students in STEM-related programs may encounter experiences of being underestimated, overlooked, or required to demonstrate their capabilities to a greater extent in learning environments where educators have not received training in [gender-responsive practice](#). Strengthening such practices can help create

learning environments that signal that technical fields are open and accessible to all students.

B3: Program design and institutional access gaps:

This barrier concerns how education and training programs are structured, across both higher education and vocational and technical training, and whether that structure makes them accessible in practice to women who are formally eligible to enroll. The features that support women's participation vary by context and may include scheduling arrangements that accommodate care responsibilities, facilities and [safety infrastructure](#) appropriate for women students and trainees, the presence of women instructors and technical staff as [visible role models](#), and placement partnerships connecting graduates to energy sector employers. Which of these matter most, and what form they take, will differ across AMS, between higher education and vocational training systems, and across individual institutions.



Photo credit: ASEAN Centre for Energy

Two different problems operate in sequence here: who chooses to pursue technical pathways, shaped by socialisation and attitudes, and how institutions are designed once women arrive, shaped by pedagogy and curriculum. Conflating the two leads to interventions that solve one while leaving the other untouched.

Recruitment, Entry and Workplace Safety

For women who complete relevant education and training, the barriers do not end at the recruitment stage, they continue. Hiring practices, workplace conditions, legal frameworks and physical environments each introduce further filters that reduce the proportion of women who successfully enter and remain in energy sector roles. Crucially, the safety dimension of this cluster extends beyond the physical worksite: it includes the journey to and from work, the hours expected, and the risk of traversing insecure environments to reach remote or field-based postings.

C1: Recruitment and hiring biases:

This barrier refers to practices, some explicit but more often indirect, through which [recruitment processes](#) can advantage male candidates even where women are equally or better qualified. Direct discrimination is less common than structural bias embedded in process design: job descriptions that use male-coded language, selection panels that are predominantly male, informal referral networks that circulate opportunities among existing employees, and assumptions about availability or commitment applied during shortlisting. Pay-setting at the point of hire forms part of the same process. Where salary bands are not published, where prior salary history is requested, and where offers are made on a discretionary basis, differences can arise at entry that are not attributable to qualifications or experience. Regional survey evidence indicates that a majority of women report being [questioned about marital status](#) or plans to have children during job interviews.

C2: Workplace safety and accessibility gaps:

This barrier refers to the conditions women encounter at energy sector worksites and in getting to them, conditions that make the workplace physically unsafe, inaccessible, or both. It operates on two distinct but connected dimensions. The first is on-site physical safety: field and construction environments in the energy sector can involve workplaces where risks of



Photo credit: ASEAN Centre for Energy

As of 2018, seven ASEAN Member States had laws addressing sexual harassment in the workplace — and just one extended that same protection to education.

harassment and violence are elevated, where sanitation and privacy facilities for women may be absent or inadequate, where changing rooms and rest areas may not be provided, and where women may be isolated in predominantly male crews without adequate support or reporting mechanisms. [International standards on violence and harassment](#) in the world of work set out the prevention and reporting obligations that apply in these settings. The second is mobility and schedule access: energy sector field roles frequently require travel to remote or underserved areas, irregular hours including night shifts, and commuting between multiple sites with limited

secure transport options. [Legal protection across the region is uneven](#): as of 2018, seven ASEAN Member States had laws addressing sexual harassment in the workplace, and only one legally protected against harassment in education.

C3: Legal compliance gaps:

This barrier refers to the distance between the formal legal framework, equal pay laws, anti-discrimination provisions, workplace safety requirements, and what actually happens in energy sector workplaces. The problem is partly one of legislative coverage: only 40 per cent of East

Asian and Pacific countries have [equal pay laws](#). But even where legal provisions exist in ASEAN Member States, enforcement may be weak. Where energy sector construction, maintenance and field operations rely on [contracted labour](#), workers in these arrangements may fall outside protections applying to directly employed staff. When it comes to equal pay, most Member States have [ratified the ILO Equal Remuneration Convention](#), but only a few countries such as the Philippines, Thailand and Viet Nam legally mandate equal remuneration for work of equal value as of 2022.

CLUSTER D:

Retention, Flexibility and the Care Economy

Entering the energy sector does not guarantee staying in it. The barriers that drive women out, or limit their advancement, are frequently less visible than those at the recruitment stage. They operate through workplace culture, informal power dynamics, and the structural mismatch between energy sector career demands and the [care responsibilities](#) that women disproportionately

carry. Similar to the global trend, across ASEAN, women perform most of the unpaid care work, and care responsibilities are consistently identified as a significant constraint on women's [labour force participation](#). In the energy sector specifically, work-life balance constraints and [unconscious bias](#) have been identified as disproportionately affecting women professionals in ASEAN.



Across ASEAN Member States, women earn less than men in the energy sector — and the pay gap persists even after accounting for skill level and role, meaning it isn't explained by qualifications alone.

D1: Unpaid care burden:

This barrier refers to the time and energy that women disproportionately spend on unpaid domestic and care work, looking after children, elderly family members, and households, which is not compensated, not counted in economic statistics, and not accommodated by most energy sector career structures. The challenge lies not only in the unequal distribution of unpaid household and care work, but also in career systems that assume workers are free from caregiving responsibilities and fail to encourage men's equal participation in care. [Regional analysis for ASEAN](#) sets out the scale of this unpaid work and its consequences for women's labour force participation.

D2: Care infrastructure gaps:

This barrier refers to the limited support systems, affordable childcare, workplace flexibility, breastfeeding facilities, phased return-to-work after parental leave, that would allow women

with care responsibilities to remain in the energy sector workforce. Where care infrastructure is limited, women face a structural choice between career continuity and family, a choice their male colleagues rarely confront in the same form. [Analysis of the care economy in Asia and the Pacific](#) identifies childcare availability and workplace flexibility as central determinants of whether women remain in employment.

D3: Glass ceiling in promotion:

This barrier refers to the structural forces embedded in performance review processes, promotion criteria, access to sponsorship, and informal leadership culture, that allow women to reach mid-level positions but limit proportionate movement into senior and executive roles. This barrier covers two linked dimensions that require separate evidence: progression, measured through promotion and sponsorship rates, and pay, measured through remuneration at comparable levels. The glass ceiling is not a single policy or decision. It is the cumulative effect of evaluation criteria that reward behaviors associated with male working styles, sponsorship networks that operate through social familiarity, and promotion panels that may apply different standards of evidence for men and women seeking the same roles. Progression and pay are closely linked, and the gender pay gap in the energy sector persists after controlling for skill level. This indicates that differences arise between men and women in comparable roles as well as through [unequal advancement](#). Contributing mechanisms

documented in the wider literature include occupational segregation into lower-paid functions and career interruptions associated with care responsibilities. Mostly, [women earn less than men](#) across ASEAN Member States, though the size of the gap varies considerably. Where pay gaps are not measured, they cannot be addressed. Sector-specific analysis finds that [pay differences persist after accounting for role and skill level](#).

D4: Organisational culture and resistance to change:

This barrier refers to workplace and social environments in which women's full participation is not actively supported, whether through interpersonal behavior, prevailing cultural norms or, in some cases, through coordinated opposition within an organisation or community. Within organisations, it can manifest as unwelcoming working conditions, aggressive interpersonal behavior, sexualised commentary and harassment, and resistance to women's professional advancement. [A review of the energy sector literature](#) documents these dynamics, including hostile working atmospheres and sexualised commentary that management may disregard. Beyond the workplace, it includes the cultural dimension of resistance to women's economic advancement: as women take on new professional roles in the energy sector, household-level resistance can emerge, particularly where women's paid employment shifts established economic dynamics within families and communities.

Cluster E:

Leadership, Decision-Making and Visibility

Women's underrepresentation at leadership level is not simply the cumulative result of earlier pipeline losses; it has its own structural drivers. The barriers in this cluster operate most acutely at the top of the pipeline, but their roots extend throughout it: a sector that does not recognise women as decision-makers from the outset will not produce the role models, mentors and sponsors that make leadership accessible to the next generation.

E1: Undervalued expertise and leadership:

This barrier, also known as recognition justice deficit, means that a group's contributions, expertise and standing are valued on equal terms with others. It refers to the systematic oversight to recognise women as legitimate leaders, experts, producers and decision makers in the energy sector, an oversight embedded in policy language, media representation and

organisational culture ⁶. The recognition justice deficit concept is drawn from the energy justice literature, in which recognition sits alongside distribution and procedure as one of three core justice dimensions.⁷

Mentoring is valuable, but limited on its own — a senior professional offering guidance and advice. Sponsorship goes further: a leader naming a woman for a promotion or board seat, backing her candidacy in closed-door conversations, and committing real resources to her advancement.

E2: Limited mentoring and sponsorship opportunities:

This barrier refers to the uneven availability of structured systems through which experienced energy sector leaders actively support women's professional development and advocate for their [advancement into senior roles](#). Such systems exist in a number of organisations and Member States across the region, but access to them is inconsistent and often depends on individual initiative rather than institutional design. Mentoring, a senior professional offering guidance and advice, is valuable but limited on its own. Sponsorship goes further. It means a senior

leader actively naming a woman for a promotion, assignment, or board seat; backing her candidacy in closed-door conversations; and committing organisational resources, dedicated budget lines and resources, to her advancement. Where few women hold senior positions, building the [networks and social capital](#) on which sponsorship depends is itself harder.

E3: Internalized psychological barriers:

This barrier refers to the internal constraints, self-doubt, impostor syndrome, reluctance to seek visibility or advocate for promotion, that many women in the energy sector carry because of sustained exposure to the structural barriers described in this chapter. These are not personal weaknesses or character flaws; they are well-documented responses to environments that have repeatedly communicated that women do not belong, are less competent, or must work harder to be taken seriously. [Comparative research](#) on girls' and women's education in science and technology documents how sustained exposure to such environments shapes self-efficacy and confidence. They matter in this toolbox because they cannot be addressed by structural change alone: actions that build professional confidence, peer support, and visibility are a necessary complement to the systemic interventions in each stakeholder chapter.

CLUSTER F:

Monitoring, Finance and Accountability

The final cluster captures the systems-level challenges that allow all the other barriers to persist without accountability: the absence of the financing instruments, monitoring frameworks, and budgeting practices that would make gender equality in the energy sector a measurable, funded, and enforced commitment rather than a stated aspiration.

F1: Unequal access to financing:

This barrier refers to the [structural disadvantages women face](#) when seeking capital to participate in the energy sector as entrepreneurs, project developers, or business owners, disadvantages rooted in how financial systems are designed, not in women's capacity or creditworthiness. [Mainstream financial institutions](#) assess viability

⁶ Cases demonstrating the effectiveness of women's leadership in just energy transition projects exist. However, they remain under-documented and rarely promoted to influence sector-wide practice. Two illustrative examples are "Our Light: Stories of Transformation in Hilabaan and Tikling" and the women, youth and farmers of Labo, Camarines Norte, who use renewable energy to strengthen their social enterprise.

⁷ Jenkins, K. et al. (2016), Energy justice: A conceptual review, Energy Research and Social Science, Vol. 11, pp. 174–182, <https://doi.org/10.1016/j.erss.2015.10.004>

through collateral, formal employment records, and credit history: criteria that systematically disadvantage women, who are less likely to hold land titles or registered assets in their own name, more likely to operate in informal or micro-enterprise settings, and less likely to have the documented financial history that conventional lending requires.

F2: Gap in standardised regional monitoring and evaluation framework:

This barrier refers to the gap in standardised regional monitoring and evaluation (M&E) framework. Indicators covering energy access, education, employment, governance and decision-making, and entrepreneurship have been [discussed at regional level](#). However, harmonised reporting requirements and [verification mechanisms](#) that would allow AMS, investors and regional bodies to track whether gender equality commitments in the energy sector are being delivered are not fully realised yet. Without a common framework, each organisation measures what it chooses, or nothing at all, making it impossible to compare progress across the region, identify where gaps persist, or hold actors accountable for commitments made. This barrier is distinct from A2, which concerns whether sex-disaggregated data is collected at all within a given country or organisation. F2 focuses on whether the data that is collected is comparable across the region, measured against agreed indicators, and reported in a form that allows progress to be tracked and commitments verified. The two are sequential in practice: data that is not collected cannot be compared, while data collected to different definitions cannot be aggregated regionally even where it exists.

F3: Gender-responsive budgeting gaps in the energy sector:

This barrier concerns the allocation of financial resources to advance gender equality in the energy sector at the national, organisational, and program levels. It is distinct from gender-blind policy (A1), which relates to the content of policies and strategies, and limited institutionalisation (A3), which concerns whether GEDI commitments are embedded in institutional mandates, governance, and

organisational structures. F3 focuses on whether [adequate financial resources](#) are allocated to translate these commitments into action. [Gender-responsive budgeting](#) is a well-established public financial management approach, and a number of AMS have introduced it at the national level. However, its application within the energy sector remains uneven. Key considerations include whether energy ministries allocate dedicated budget lines for gender equality initiatives, whether fiscal instruments, such as subsidies, tax incentives, and public procurement, are designed to promote women's participation and leadership, and whether energy programs are adequately resourced to implement the gender commitments they set out, and whether women hold seats in the decision-making bodies that decide how energy budgets are allocated in the first place.

What's missing across this cluster isn't awareness — it's the financing instruments, monitoring frameworks, and budgeting practices that would turn gender equality in the energy sector from a stated aspiration into a measurable, funded, and enforced commitment.

F4: Timing and depth of gender analysis in energy programs:

This barrier concerns two related aspects of how GEDI assessments are conducted within energy programs and projects. The first is timing. Gender analysis is intended to enter at the concept and preparation stage, so that its findings shape project design, [the gender action plan](#) and the results framework. The second is depth. Analysis that remains at a general level, without engaging the specific workforce, community or institutional context of the program, gives practitioners little that is concrete to act on. Together, these aspects help ensure that gender equality commitments articulated in programs are effectively translated into implementation adequately and from an early stage, resulting in tangible outcomes.

Strategic actions by stakeholder groups

This section translates the barriers identified in Chapter III into concrete strategic actions for advancing gender equality and inclusion in the energy workforce. The actions are organised by five key stakeholder groups: governments and regulators; companies and employers; educational institutions and training centres; regional and multilateral organisations; and professional networks, NGOs and grassroots workforce initiatives. Within each stakeholder section, actions are structured across four implementation phases – assess and diagnose; design and commit; implement and enable; and monitor, evaluate and learn – reflecting the journey from identifying challenges to embedding gender-equitable and sustainable solutions.

Each action step is tagged according to the workforce pipeline stage it addresses, namely, education, entry, retention or leadership, and cross-referenced with the relevant barrier codes (e.g. A1 , C3) to establish a clear link between evidence and action. Together, the actions provide responses to all barriers identified in Chapter III, while enabling readers to trace each recommendation back to its underlying rationale.

To support practical applications, each action step includes a short checklist that stakeholders can use as a self-assessment tool. The checklist helps users consider key design elements before implementation and verify that actions have been meaningfully implemented in practice.

Readers can navigate directly to the subsection most relevant to them and use the barrier codes to connect recommended actions with the challenges outlined in Chapter III.



Governments and regulators

PHASE 1: ASSESS AND DIAGNOSE

STEP 1.1: CONDUCT A NATIONAL GENDER AUDIT OF ENERGY POLICY AND INSTITUTIONS

1. Pipeline stage:



2. **Action:** Commission a structured audit of the policy and institutional architecture governing gender in the energy sector, covering
a) a review of national energy policies, strategies and regulations against a gender integration continuum, from gender-blind to gender-transformative; b) a budget analysis identifying what share of energy expenditure carries explicit gender objectives, at programme or line-item level; c) mapping of existing gender focal points and coordination mechanisms across the energy, gender, labour, and finance or planning ministries, including their mandates, budgets, reporting lines and training status; and d) an inventory of what sex-disaggregated energy workforce data are currently collected, by which body, at what frequency and under what mandate.
3. **Why this matters:** Policy commitments, budget allocations and institutional mandates determine what is possible at every stage of the workforce pipeline. Of 385 Asia Pacific energy policies reviewed 2015 - 2022, only 4.2% included [meaningful gender content](#). Without a baseline, all subsequent design decisions rest on assumption.



Photo credit: ASEAN Centre for Energy

4. **Barriers addressed:** [A1](#), [A2](#), [A3](#), [A4](#), [F2](#), [F3](#)
5. **Checklist:** Does the policy review cover regulations and implementing instruments, or only headline strategies? Does it include subnational government bodies and state-owned utilities? Is the budget analysis line-item or programme-level? Have gender focal points been interviewed, not only listed? Does the mapping identify whether an interministerial gender coordination mechanism already exists and whether the energy ministry is represented in it? Did the audit team include gender and energy expertise, and was the audit designed for this purpose rather than adapted from a routine human resources review?

STEP 1.2: MAP WOMEN'S PROGRESSION ACROSS THE ENERGY WORKFORCE PIPELINE

1. Pipeline stage:



2. **Action:** Construct a pipeline map quantifying women's progression and attrition across four transitions: secondary STEM enrolment to technical tertiary or TVET entry; graduation in technical fields to energy sector employment; entry-level to midcareer retention; and

midcareer to senior or executive appointment. Begin from the data inventory produced under Step 1.1, and commission collection only where gaps are identified. Quantify the loss at each transition to establish where attrition is greatest. The findings should be used to identify the transition at which intervention is most needed and to select corresponding actions in phases 2 and 3.

3. **Why this matters:** Women's attrition from the



energy workforce occurs at multiple points, from secondary education through to senior appointment, and the largest losses are not in the same place in every country. Without a pipeline map, interventions are designed around assumptions about where the problem lies rather than evidence, and resources may be directed at a stage where the loss is comparatively small. The findings should therefore be used to identify priority transition points, investigate the underlying causes of attrition, and determine which policy or programme levers are most appropriate.

4. **Barriers addressed:** **A2, B1, B3, D3.**
5. **Checklist:** Does the map cover all four pipeline transitions, or only education and entry? Does it distinguish attrition by cause, separating noncompletion, nonentry and career exit? Are TVET data included, or only university pathways? Are the data recent, within three years? Has the map been developed with the education ministry, the national TVET authority and statistical office, and shared with private sector employers? If the map identifies a significant loss at one transition, have the main causes been investigated? Have the relevant policy or institutional levers been identified to address them?

PHASE 2: DESIGN AND COMMIT

STEP 2.1: EMBED GEDSI IN NATIONAL ENERGY POLICY AND PLANNING DOCUMENTS

1. Pipeline stage:



2. **Action:** Review national energy plans, renewable energy strategies, and APAEC-aligned national action plans to include: a) explicit GEDSI objectives and measurable targets by 2030; b) reference to the ACE RE-Gender Roadmap as a guiding reference; c) gender-responsive budgeting requirements for all energy sector programmes; and d) mandatory sex-disaggregated data collection as a reporting standard. Where possible, put measures in place to widen women's access to energy sector financing, such as credit

guarantees or procurement set-asides for women-led enterprises.

3. **Why this matters:** APAEC 2026 - 2030 sets the political direction on GEDSI inclusion in the energy workforce as the region's policy framework, encouraging member states to reflect it in their national context. However, this direction does not translate into practice until national plans operationalise it.
4. **Barriers addressed:** **A1, A3, C3, F1, F2.**
5. **Checklist:** Does the revised energy policy move beyond the "women as vulnerable" framing to recognise women as agents of change and energy producers? Are gender targets numeric and time-bound

(not aspirational language only)? Is gender-responsive budgeting a legal or regulatory requirement, or merely a recommendation?

Is there a formal review mechanism to assess progress?

STEP 2.2: ESTABLISH OR STRENGTHEN INTERMINISTERIAL GEDI COORDINATION MECHANISMS

1. Pipeline stage:



2. **Action:** Formalise a coordination body or working group linking the energy ministry with the (welfare and) women's affairs ministry, the finance and planning ministry, and labour at national and regional levels. Encourage regular coordination meetings and joint reporting on energy-gender indicators. In parallel, establish a dedicated regional hub for coordination, learning, and monitoring and evaluation, and mandate the [ASEAN RE Information and Training Centre](#) to develop or align a standardised database of gender-disaggregated data and social indicators, collected at multiple pipeline stages, including the number of women employed in or affected by the transition.

3. **Why this matters:** Energy and climate goals are routinely advanced with limited gender and social inclusion perspectives due to institutional silos. A structural coordination mechanism is a precondition for integrated policy-making.

4. **Barriers addressed:** **A3**, **A4**.

5. **Checklist:** Does the coordination body have a formal mandate? Does it have dedicated budget and secretariat support? Does it include civil society and private sector representatives? Are its outputs linked to APAEC 2026 - 2030 reporting? Does the regional hub database collect data at all four pipeline stages? Is the database's methodology aligned with the existing ACE frameworks, or does it create a second, separate data standard?

STEP 2.3: REFLECT GENDER-RESPONSIVE ENERGY WORKFORCE COMMITMENTS IN NATIONALLY DETERMINED CONTRIBUTION (NDC) AND NATIONAL CLIMATE PLANS

1. Pipeline stage:



2. **Action:** Coordinate with the national authority responsible for NDC development and coordination to ensure that energy workforce commitments are integrated into the next NDC revision and into NDC implementation and sectoral plans in the interim. These commitments could cover workforce participation targets and skills and training provisions, supported by the best available sex-disaggregated data and, where such data are not yet available, by a commitment to collect it.
3. **Why this matters:** NDCs are revised on a five-year cycle and reported internationally, creating a recurring point at which

commitments must be restated and progress shown. An analysis of [NDCs across the region](#) found that only a few member states prioritise gender in their climate policies, and that where they do, the emphasis falls on nondiscrimination and policy design rather than on employment and skills. Several member states, including Cambodia, Indonesia, Myanmar and Viet Nam, increased gender content between their first and updated NDCs, indicating that the instrument is open to this.

4. **Barriers addressed:** **A1**, **A4**, **F2**.

5. **Checklist:** Does the NDC reference workforce gender targets alongside technical energy targets? Is there a named focal point responsible for NDC gender components? Are gender commitments costed within NDC financing plans?

PHASE 3: IMPLEMENT AND ENABLE

STEP 3.1: FUND AND ENFORCE GEDI FOCAL POINTS IN ALL ENERGY SECTOR BODIES

1. Pipeline stage:



Entry



Retention



Leadership

2. **Action:** Establish GEDI focal points with a) clear terms of reference; b) a dedicated budget; c) mandatory technical training; and d) formal reporting lines, in all energy ministries, regulatory bodies and state-owned utilities.
3. **Why this matters:** A common risk is the appointment of GEDI focal points without accompanying authority, resources or

continuity.

4. **Barriers addressed:** **A3**, **A4**.

5. **Checklist:** Do focal points attend ministry leadership meetings, or only report upward? Is the focal point role full-time or additional duty? Is there a replacement plan to avoid institutional memory loss from staff turnover? Are focal points networked regionally through ACE or the ASEAN Commission on the Promotion and Protection of the Rights of Women and Children (ACWC) mechanisms?

STEP 3.2: ENCOURAGE SEX-DISAGGREGATED DATA COLLECTION AND REPORTING

1. Pipeline stage:



Education



Entry



Retention



Leadership

2. **Action:** Support national energy statistics agencies, sector regulators, and other relevant institutes to collect and publish annual sex-disaggregated data across the five ACE dimensions – access, education, employment, decision-making and entrepreneurship – aligned to the ASEAN Energy Database System (AEDS).
3. **Why this matters:** Data are the precondition

for all other action. The [ACE 2025 policy brief](#) shows that for energy access, only four AMS have data; for education, only one AMS; for decision-making, only one AMS.

4. **Barriers addressed:** **A2**, **F2**, **F4**.

5. **Checklist:** Are data collected at enterprise/ employer level, or only at household/macro level? Are time-series baselines established (not just single-point snapshots)? Are data published openly, or held internally? Does data methodology align with ACE/AEDS standards to enable regional comparison?

STEP 3.3: DESIGN AND FUND GENDER-RESPONSIVE ENERGY WORKFORCE PROGRAMMES

1. Pipeline stage:



Education



Entry



Retention



Leadership

2. **Action:** Codesign with industry and TVET institutions targeted programmes to increase women's entry and retention in technical energy roles, including scholarships for girls in energy-related STEM, apprenticeship and mentorships cofunding with gender equity requirements, childcare or care allowance provisions for energy sector trainees and employees, and co-funded leadership-readiness programmes pairing mid-career women with senior executives, alongside transparent promotion processes.
3. **Why this matters:** Skills training on its own

does not reliably lead to sector entry. Evidence from [cofunded training programmes](#) shows substantially better employment outcomes where employers invest in the training, and [regional programmes](#) increasingly pair skills development with mentoring and employer linkage.

4. **Barriers addressed:** **B3**, **C1**, **C2**, **D1**, **D2**, **D3**.

5. **Checklist:** Do programmes include care support provisions, or assume trainees have no care responsibilities? Are equity targets (% women, % rural, % ethnic minority) numeric and monitored? Are employers required to cofund and codesign, or only to receive graduates? Is there postplacement tracking for at least 12 months?

PHASE 4: MONITOR, EVALUATE AND LEARN

STEP 4.1: ESTABLISH A NATIONAL ENERGY-GENDER M&E FRAMEWORK ALIGNED TO APAEC

1. **Pipeline stage:**



2. **Action:** Develop a national M&E framework for energy-gender progress, covering output, outcome and impact indicators across all four pipeline stages, with annual reporting to the prime minister/cabinet-level body and biennial reporting to ACE/APAEC. This effort could also contribute to the regional hub by supporting the development and standardisation of comparable gender-disaggregated data and social indicators.
3. **Why this matters:** A [common set of regional indicators](#) has been proposed, but harmonised collection and reporting against them is not yet in place, so there is no agreed basis for verifying whether projects improved gender equality. Without M&E, it is difficult to learn or adapt the implementation cycle.
4. **Barriers addressed:** **A2, F2, F4**.
5. **Checklist:** Are impact indicators tracking changes in decision-making power and career advancement (not just attendance at events)? Is the framework linked to APAEC 2026 – 2030 GEDSI reporting? Is there independent verification of self-reported data? Are failure cases documented alongside successes?



STEP 4.2: CONDUCT REGULAR GENDER PROGRESS REVIEWS OF NATIONAL ENERGY POLICY

1. **Pipeline stage:**



2. **Action:** Schedule and resource regular reviews of all national energy policies against the Gender Integration Continuum, publicly reported, with ministerial accountability for any regression.
3. **Why this matters:** Gender mainstreaming is an ongoing process that requires regular review and reassessment. Institutionalised

review cycles can help reduce fragmented or duplicative efforts,⁸ strengthen coordination, and sustain [progress towards gender equality](#) over the long term.

4. **Barriers addressed:** **A1, A3**.
5. **Checklist:** Is the review conducted by an independent body or by the same ministry that owns the policy? Are findings published and accessible? Does the review cycle align with APAEC reporting and NDC review periods?

⁸ Lemus-Delgado, D. and C. Carlos (2025), "ASEAN, gender equality and women's empowerment in STEM", Asian Education and Development Studies, Vol. 14/2 pp. 299–313, <https://doi.org/10.1108/AEDS-07-2024-0138>.

ASEAN IN PRACTICE

Lao People's Democratic Republic: Ministry-level Women's Union in the energy sector

What happened: In line with national government policy on gender equality, the Ministry of Energy and Mines supports women's professional development through its Women's Union and trade union activities. Women across the ministry, including in administration, corporate functions, ICT and engineering, are supported through training, workshops and further education, including master's and doctoral studies and English-language training. These measures respond to practical needs identified by the ministry, including participation in international meetings, preparation of presentations and reports, and keeping pace with emerging technologies such as renewables and hydrogen. Development partner programmes have also created opportunities for women to participate as panellists and speakers at international conferences, enabling them to share their experience and bring new knowledge back to the ministry. The approach is intended to support women's progression into positions with greater responsibility, including division- and department-level roles involving decision-making, implementation, monitoring and evaluation.

Women across the ministry — including administration, corporate functions, ICT and engineering — are supported through training, further education, and opportunities to represent the ministry internationally.

Who drove it: The Ministry of Energy and Mines, through its Women's Union and trade union structures, with support from development partner programmes.

What it demonstrates: How an energy ministry can integrate support for women's professional development into its own institutional structures and workforce practices. It shows how government-led measures can combine skills development, further education, and opportunities for national and international participation to support women's progression and visibility within the energy sector.



Credit: ASEAN Centre for Energy

The Philippines: Department of Energy Gender Toolkit and Focal Point System

What happened: The Philippine Department of Energy (DOE) launched a [Gender Toolkit for the Energy Sector](#) in June 2016, comprising a Gender and Development (GAD) strategic framework, guidance on integrating gender equality into policies and programmes, a [GAD checklist](#) for assessing programme and project design, and a guide for mainstreaming GAD across the department and its attached agencies. In 2020 the DOE issued a department order establishing its [Gender and Development Focal Point System](#), giving the framework a standing institutional owner within the department. Gender has since been integrated into the Philippine Energy Plan, and the Toolkit operates alongside the national GAD budget requirement under the Magna Carta of Women. Within the sector, women hold 33% of [energy leadership roles](#). As wider context, the Philippines ranked 25th on the 2024 Global Gender Gap Index, the highest position among ASEAN member states, an economy-wide measure shaped by factors well beyond the energy sector.

Who drove it: The Philippine DOE, through its GAD Focal Point System, with the 2016 Toolkit launched under the department's first woman

Secretary, and technical assistance from the United States Agency for International Development (USAID).

What it demonstrates: How a government department can move from guidance to institutionalisation by connecting a gender framework with an accountable institutional structure and the sector's central planning processes. It also shows how gender mainstreaming tools can be reinforced when they are linked to established government planning and budgeting mechanisms rather than operating as standalone resources.



Cambodia: Gender Mainstreaming Strategic Plan in Mines, Energy and Petroleum 2021–2025

What happened: Cambodia's Ministry of Mines and Energy implemented a Gender Mainstreaming Strategic Plan targeting 26.5% female staff in decision-making roles by 2025 (from 21.5% in 2021). Annual progress is reported to the prime minister during the National Council for Women congress. The Asian Development Bank's (ADB's) Energy Transition Sector Development Program embedded [STEM/energy boot camps](#) for female high school students and mandated 50% female faculty in engineering capacity-building workshops.

Who drove it: Ministry of Mines and Energy; ADB support.

What it demonstrates: Ministerial-level targets with annual executive reporting create genuine accountability, without requiring a standalone gender-energy policy to be in place.



26.5%

target for female staff in decision-making roles by 2025 — up from 21.5% in 2021.



50%

female faculty mandated in ADB-backed engineering capacity-building workshops.

Companies and employers

PHASE 1: ASSESS AND DIAGNOSE

STEP 1.1: CONDUCT A WORKPLACE GENDER AUDIT USING A STRUCTURED FRAMEWORK

1. **Pipeline stage:**



Entry



Retention



Leadership

2. **Action:** Apply a structured gender audit framework, covering institutional policies and procedures, workforce composition and competencies, and measurable outcomes and results, to produce a baseline assessment covering recruitment practices, pay equity by role type and level, promotion rates disaggregated by gender, workplace safety conditions including fieldwork and operational sites, and the presence and effectiveness of grievance mechanisms. The audit should cover all categories of workers including subcontracted and field-based staff, not only permanent office employees.⁹

3. **Why this matters:** Without a structured audit, private sector gender commitments risk remaining declaratory.

4. **Barriers addressed:** A2, C1, C2, C3, D3.

5. **Checklist:** Does the audit cover fieldwork and operational roles, not only office-based positions? Are salary data reviewed by role type and level, not only as a company-wide average? Are informal promotion practices, mentoring access, sponsorship, stretch assignment allocation assessed, not only formal human resources (HR) procedures? Has the audit been reviewed by an external GEDI specialist with energy sector experience? Are results shared with employees and the board, not only retained internally by HR?

STEP 1.2: MAP WOMEN'S REPRESENTATION ACROSS THE FOUR PIPELINE STAGES

1. **Pipeline stage:**



Education



Entry



Retention



Leadership

2. **Action:** Disaggregate the company's workforce data by gender and career stage, graduate intake, junior technical, mid-level technical and professional, mid-management, senior management, Executive and board, and plot attrition rates between each stage. Identify the stage with the highest exit rate for women and whether exits are voluntary or involuntary. Conduct structured exit interviews disaggregated by gender where these do not already exist.
3. **Why this matters:** Research suggests structural barriers, including glass ceiling and professional self-efficacy, have indirect effects on work engagement, mediated through [sustainable career development](#).

This means the point where women exit and the root cause of that exit may differ: an intervention at the wrong stage addresses symptoms rather than causes.

4. **Barriers addressed:** D3, E2, E3.

5. **Checklist:** Is attrition tracked separately by voluntary resignation, involuntary exit and parental leave nonreturn? Are exit interview findings disaggregated by gender and shared with senior leadership, not only HR? Is the representation map compared against ASEAN sector benchmarks, not only the company's prior-year baseline? Is the map updated annually and reviewed at board level? Does the map distinguish between technical/operational roles and administrative roles at each career level?

⁹ Example frameworks are: [The Gender Audit Handbook: A Tool for Organisational Self Assessment and Transformation by InterAction](#) or the [Gender Audit Recommendation for Gender Mainstreaming in the RHC Sector](#) by Women Engage for a Common Future (WECF).

PHASE 2: DESIGN AND COMMIT

STEP 2.1: DEVELOP AND ADOPT A CORPORATE GENDER ACTION PLAN

1. Pipeline stage:



Entry



Retention



Leadership

2. **Action:** Develop a time-bound, board-endorsed gender action plan (GAP) using the three-dimensional framework, covering: a) policies and procedures revision, recruitment language, promotion criteria, parental leave, antiharassment mechanisms; b) gender-competency building for line managers and HR; and c) external contributions, supply chain GEDI requirements, community employment programmes. Set numeric targets for female representation at each career level by 2027 and 2030, with named executive sponsors for each target.¹⁰

3. **Why this matters:** Companies in the top quartile for gender diversity in executive teams are 25% more likely to have [above-average profitability](#); those with greater board gender diversity are [60% more likely](#) to reduce energy consumption intensity. Board endorsement of a time-bound GAP with named accountability converts a values statement into a performance management instrument. Where the company procures goods or services, the plan should also address supplier diversity and access for women-led businesses.

4. **Barriers addressed:** **A3**, **C1**, **D3**, **F1**, **F2**.

5. **Checklist:** Is the GAP endorsed at board level, rather than treated as an HR or corporate social responsibility (CSR) initiative? Does it include a named executive sponsor for each target, not only a responsible department? Are targets numeric and time-bound, not aspirational language only? Are GAP milestones tied to senior management performance reviews? Is supply chain and procurement included in the GAP scope, specifically, GEDI screening criteria for major contractors?



¹⁰ Useful resources are: [Gender Equality Action Plans](#) by the European Institute for Gender Equality (EIGE) and [Gender Audit Recommendation for Gender Mainstreaming in the RHC Sector](#) by WECF.

STEP 2.2: ESTABLISH STRUCTURED MENTORING AND SPONSORSHIP PROGRAMMES FOR WOMEN IN TECHNICAL ROLES

1. Pipeline stage:



Retention



Leadership

2. **Action:** Design and fund a structured mentoring programme built on evidence-based design principles: one-to-one trained mentor matching; group mentorship clusters for mentees at similar career stages; time-bound goals with joint action planning reviewed at 6 and 12 months; regular training for mentors on gender-equitable workplace behaviours; and the explicit engagement of male senior colleagues as mentors and active allies. Distinguish mentoring (guidance and advice) from sponsorship (active advocacy in promotion decisions and senior conversations) and build both into the programme architecture.
3. **Why this matters:** Informal networks are more accessible to men in the energy sector; structured programmes create an institutional counterweight. The absence of

mentoring and sponsorship infrastructure is a documented barrier to women's advancement into senior technical and leadership roles across ASEAN energy firms, reinforcing internalised psychological barriers that compound over a career.

4. Barriers addressed: **E2, E3, D3.**

5. **Checklist:** Are mentors trained in inclusive mentoring practice before they are matched, or only introduced to their mentee? Is the programme evaluated on mentee career outcomes at 12 months, not only on participation rates? Are male employees included as mentees on gender-equitable workplace practices, not only as mentors? Is the programme funded as a dedicated budget line, or does it rely on voluntary effort without resourcing? Are sponsorship commitments, active advocacy in promotion conversations, explicitly part of the programme design and evaluated separately from mentoring?

STEP 2.3: REVISE HR POLICIES TO REMOVE STRUCTURAL BARRIERS

1. Pipeline stage:



Entry



Retention



Leadership

2. **Action:** Revise: a) parental leave policy – enabling parental leave for fathers is an important structural lever; b) shift scheduling and field deployment practices to explicitly accommodate primary care responsibilities; c) equipment and safety protocols to ensure they are gender-responsive; and d) grievance and sexual harassment mechanisms, aligned to national legal requirements, ensuring confidential and independently managed reporting.
3. **Why this matters:** Structural HR policies are the architecture of retention. Care economy barriers, women spending two to five times more on [unpaid care work](#) than men across ESCAP member states, cannot be resolved

through culture change campaigns alone. Male-normative workplace design creates physical and practical exclusion that policy documents alone do not correct.

4. Barriers addressed: **C1, C2, C3, D1, D2.**

5. **Checklist:** Is parental leave available to and actively communicated to male employees, and is take-up tracked? Do shift and field deployment policies explicitly account for primary care responsibilities, with clear guidance for line managers on how to apply flexibility provisions? Is the sexual harassment grievance mechanism independently managed and confidential, with a clear nonretaliation policy? Are policies reviewed at least annually for compliance with CEDAW and the relevant national law in each AMS where the company operates?

PHASE 3: IMPLEMENT AND ENABLE

STEP 3.1: IMPLEMENT INCLUSIVE RECRUITMENT PRACTICES

1. **Pipeline stage:**



Education Entry

2. **Action:** Reform recruitment processes to include: gender-balanced shortlisting requirements (minimum 40% women on all shortlists for technical roles where the qualified candidate pool allows); structured interview protocols based on standardised criteria, not impression; blind curriculum vitae (CV) screening where feasible; active outreach to women's university networks, TVET institutes and graduate platforms rather than relying exclusively on organic applications; and partnerships with organisations active in this space in ASEAN, such as women's energy networks in the Philippines and Viet Nam.
3. **Why this matters:** [Across ASEAN](#), women in professional, scientific and technical occupations earn as little as 68% of what men earn, and only three member states legally mandate equal remuneration for work

of equal value as of 2022. Pay is therefore not a reliable draw into technical roles, which places greater weight on how employers recruit: where positions are advertised, how they are described and who a company is visibly seen to hire.

4. **Barriers addressed:** **B1**, **C1**, **C3**, **E1**.
5. **Checklist:** Are job descriptions reviewed for gendered language, technical competency framing rather than personality-trait framing, before posting? Are active outreach events held at women's technical colleges and TVET institutes, not only at large research universities? Do interviewers receive structured training before each recruitment cycle, not only at initial hire? Are application-to-shortlist and shortlist-to-hire conversion rates tracked by gender and reviewed quarterly? Do the company's public employer brand, website, LinkedIn, sector press, feature women in technical and operational roles, not only in communications or HR functions?

STEP 3.2: INVEST IN CARE INFRASTRUCTURE AND FLEXIBLE WORKING ARRANGEMENTS

1. **Pipeline stage:**



Retention

2. **Action:** Provide or cosubsidise on-site or nearby childcare at operational facilities where a critical mass of employees warrants it; offer structured flexible working arrangements as a formal HR policy, not informal tolerance that depends on individual manager discretion; implement structured return-to-work programmes for employees returning from parental leave, including technical upskilling provision; and track take-up of all flexibility policies by gender to ensure they are used, not only available on paper.
3. **Why this matters:** Publicly funded, high-quality childcare and [flexible work arrangements](#) are associated with both higher female employment rates and higher labour productivity in comparative evidence across Organisation for Economic Cooperation

and Development (OECD) and emerging-economy contexts. In the energy sector, field-based and operational requirements make care infrastructure more, not less, critical: workers who cannot arrange care reliably cannot accept field assignments.

4. **Barriers addressed:** **D1**, **D2**.
5. **Checklist:** Is childcare support available to operational and field staff, not only office-based employees? Are flexible working policies communicated to all line managers with explicit guidance on how to approve and manage them? Is take-up of flexibility policies tracked and reported by gender, and is nontake-up by women flagged for investigation? Does the return-to-work programme include technical upskilling, or only administrative reonboarding? Is access to flexibility provisions part of the performance assessment for line managers?

STEP 3.3: EMBED GEDI COMPETENCIES IN MANAGEMENT AND LEADERSHIP DEVELOPMENT

1. **Pipeline stage:**



Retention



Leadership

2. **Action:** Integrate GEDI awareness and inclusive leadership skills into all management development programmes, not as a standalone diversity module, but embedded throughout performance management, people development and team leadership content. Require all line managers to complete GEDI-integrated management training before taking on people management responsibilities, with refresher every two to three years.
3. **Why this matters:** Hostile organisational culture and glass ceiling dynamics are both driven and sustained by line manager behaviour more than by formal policy. The same 2024 survey of 88 respondents across nine AMS found that although 69% of respondents were women, only 13% held

senior-level positions and just 3% sat at Clevel, evidence that exclusionary dynamics concentrate at the [management layer](#) rather than at entry level. GEDI competency in managers is the intervention with the highest leverage for retention and promotion outcomes.

4. **Barriers addressed:** [D3](#), [D4](#), [E2](#).
5. **Checklist:** Is GEDI training mandatory for all managers, not optional or recommended? Does training include practical skills, inclusive meeting facilitation, bias-aware performance review, sponsorship behaviours and awareness content? Are managers assessed on GEDI-relevant behaviours in their own performance reviews? Is there a system for employees to flag inclusive or noninclusive manager behaviour confidentially? Is the training evaluated for behaviour change at six months, not only satisfaction at training end?

PHASE 4: MONITOR, EVALUATE AND LEARN

STEP 4.1: PUBLISH AN ANNUAL GEDI PROGRESS REPORT

1. **Pipeline stage:**



Entry



Retention



Leadership

2. **Action:** Publish an annual report, aligned to environmental, social and governance (ESG)/ sustainability reporting frameworks and sector disclosure requirements, covering gender pay gap by role type and level; female representation at each career stage from graduate intake to board; GAP implementation status rated against milestones; results from the Phase 1 pipeline map, updated annually; and what changed compared with the prior year and why. Publishing this document so that it is publicly accessible could strengthen its accountability value.
3. **Why this matters:** [ESG reporting](#) with gender dimensions is already mandatory

in a few countries and represents the direction of travel for regulatory frameworks across ASEAN. Public reporting creates accountability that internal review cycles cannot: it enables sector-level benchmarking, civil society scrutiny and investor analysis of gender performance.

4. **Barriers addressed:** [F2](#), [A2](#).
5. **Checklist:** Is the gender pay gap reported by role type and level, not only as a company-wide average? Is GAP implementation rated against specific milestones, not only described in narrative? Are figures compared with prior year and with available sector benchmarks? Is the report reviewed by an independent auditor or third-party verifier? Are failures and reversals documented alongside successes, not only positive progress?

ASEAN IN PRACTICE

Indonesia: Pertamina PERTIWI Women's Leadership Accelerator

What happened: Pertamina, Indonesia's state energy company, established PERTIWI (Women with Resilience, Integrity, Authority and Innovation), a structured Women's Leadership Accelerator programme sustained over three years. Women in leadership rose from 14% in 2021 to 18.4% in 2024, a gain of 4.4 percentage points. A [Respectful Workplace Policy](#) was subsequently adopted across Indonesian state-owned enterprises (SOEs).

Who drove it: Pertamina corporate leadership, with government SOE governance linkage.

What it demonstrates: A targeted internal pipeline programme, sustained over three full years with board-level accountability, can shift leadership representation by four percentage points and create positive spillover into national SOE governance standards.

Philippines: Meralco Mbrace enterprise-wide inclusion programme

What happened: Manila Electric Company (Meralco), the Philippines' largest electricity distributor, launched Mbrace in 2021 as an enterprise-wide programme to promote women's empowerment and representation in the workforce. The programme has since broadened in scope to encompass a wider inclusion agenda, including support for employees with disabilities. Measures introduced include [improvements to workplace facilities](#) at company headquarters, with further facilities planned across other company locations, alongside employee engagement activities and awareness programming delivered with senior leadership participation.

Mbrace is positioned within Meralco's [Powering the Good Life](#) sustainability framework, structured around the pillars of Power, Planet, People and Prosperity, rather than operating as a standalone initiative.

Who drove it: Manila Electric Company (Meralco).

What it demonstrates: A workforce programme initiated around women's representation can be broadened over time into a wider inclusion agenda, and can be anchored within an enterprise sustainability framework, providing basis for continuity beyond any single programme cycle.

Malaysia: PETRONAS Leading Women Network (PLWN)

What happened: PETRONAS established the PETRONAS [Leading Women Network in 2015](#) as a company-wide initiative to advance gender inclusion, combining mentorship, leadership development and networking. The network works specifically on women's representation in engineering and technical roles, and the company has paired it with practical workplace measures: separate living quarters for women engineers, uniforms designed for women, flexible working hours and maternity provisions including no overtime for pregnant employees. [PETRONAS exceeded](#) its 2024 target of 28% women in leadership, reaching 31% of senior leadership roles in 2023, with women making up 29% of the total workforce. PLWN has also partnered externally, including with [Malaysia Women in Energy](#) and, in 2024, with the Shell Women's Action Network on women's representation in STEM.

Who drove it: PETRONAS senior leadership, with the network established under a [member of the board](#) responsible for human resources, and supported by a Diversity and Inclusion Committee established in 2019 to monitor measurable targets across gender, culture, age and nationality.

What it demonstrates: A leadership network becomes more effective when paired with changes to physical working conditions. Provisions such as appropriate accommodation, well-fitted protective clothing and maternity-adjusted duties address retention barriers that mentoring alone cannot, particularly in offshore and field roles. Setting a numerical leadership target with a date allowed performance against it to be assessed publicly.

Educational institutions and training centres

PHASE 1: ASSESS AND DIAGNOSE

STEP 1.1: MAP GENDER REPRESENTATION ACROSS THE EDUCATION AND TRAINING PIPELINE

1. **Pipeline stage:**
2. **Action:** Collect and publish sex-disaggregated data on enrolment, year-by-year continuation,  Education completion and graduate employment outcomes, including employer sector and role type, for all energy-related STEM degrees and TVET programmes. Identify the specific transition points where women are most likely to exit the pipeline: between secondary and tertiary, within the degree or programme, or between graduation and employment. Share findings with national energy ministries and private sector employers annually.¹¹ Where feasible, use these findings to [support joint research](#) with energy ministries, employers and regional partners on women's pathways from STEM and TVET education into energy employment.
3. **Why this matters:** The pipeline problem starts in education and compounds at every subsequent stage. Without institution-level data collected at each year of study, the specific attrition point, and therefore the specific intervention required, remains invisible.
4. **Barriers addressed:** **A2, B1, B2, B3.**
5. **Checklist:** Are data collected at each year of study, not only at enrolment and graduation? Are employment outcomes tracked by employer sector, role type and seniority? Are findings shared proactively with energy ministry counterparts and private sector employers? Is there a baseline for comparison against other faculties within the same institution? Do the data distinguish between students who did not pursue energy careers?

STEP 1.2: CONDUCT AN INSTITUTIONAL GENDER AUDIT OF FACULTIES AND DEPARTMENTS

1. **Pipeline stage:**  Education  Leadership
2. **Action:** Apply institutional gender gap analysis to identify where structural barriers exist within the institution itself. This can be done using resources such as the [International Network for Advancing Science and Policy \(INASP\) gender-responsive pedagogy framework](#) on categories such as leadership consciousness, resources and capacity, rules and policies, and organisational culture and norms. This means assessing not only who is enrolled, but who is teaching, [how assessment is designed](#), how informal culture operates in Laboratories and workshops, and how [promotion and tenure criteria](#) may systematically disadvantage women faculty.
3. **Why this matters:** Female students in STEM programmes across the region may encounter experiences of being underestimated or dismissed in the classroom, patterns that can reproduce inequality regardless of formal enrolment numbers. Where this occurs, it is structural rather than individual, not student-driven. Institutions that audit only enrolment data miss the mechanism through which women exit after arrival.
4. **Barriers addressed:** **B2, B3, C2, D4, E3.**
5. **Checklist:** Are promotion and tenure criteria reviewed for gender bias in research output evaluation – for example, publication volume criteria that do not account for the care penalty? Are student experiences of gender-based discrimination formally reported through a confidential mechanism and acted upon? Are syllabi reviewed for

¹¹ A useful resource could be the ILO's (2012) document [TVET Reform: Gender Mainstreaming into Technical and Vocational Education and Training \(TVET\) in Bangladesh](#).

gendered representation? Do case studies feature women as technical experts, project managers and sector leaders, or primarily as

beneficiaries? Are Laboratory and workshop environments assessed for physical safety and social inclusivity for female students?

PHASE 2: DESIGN AND COMMIT

STEP 2.1: ADOPT GENDER-RESPONSIVE PEDAGOGY ACROSS STEM AND ENERGY PROGRAMMES

1. Pipeline stage:



Education

2. **Action:** Implement a gender-responsive pedagogy (GRP) framework, addressing gender at representation, equity, stereotypes, internalised bias, interactions and space, and empowerment. For instance, the INASP six-dimension GRP covers all of these areas. The GRP must be treated as an [institutional change process](#), not a one-off training event: it requires [sustained support](#), [peer review of teaching practice](#), and systematic student feedback collected and disaggregated by gender.
3. **Why this matters:** The core finding from implementation evidence is that a one-day awareness training does not change teaching behaviour. The transformative element is sustained peer support and mentoring over months, not the initial training. Institutions that treat GRP as a tick-box exercise produce no measurable change in student outcomes.
4. **Barriers addressed:** **B1** **B2** **D4**



Photo Credit: ASEAN Centre for Energy

5. **Checklist:** Is GRP training mandatory for all faculty in energy-related programmes? Is there a follow-on mentoring and community of practice structure of at least six months duration after the initial training? Are GRP outcomes tracked through student feedback surveys disaggregated by gender, and are results acted upon? Is GRP embedded in faculty performance review criteria? Is the programme reviewed and updated annually?

STEP 2.2: REDESIGN ENERGY AND TVET CURRICULA TO REFLECT THE GENDER DIMENSIONS OF THE ENERGY TRANSITION

1. Pipeline stage:



Education



Entry

2. **Action:** Revise energy engineering and TVET curricula to: a) integrate gender-aware case studies featuring women in technical energy roles as engineers, project developers, plant operators and utility managers, not only as community beneficiaries; b) include a module on GEDI in the energy sector as a professional and sector competency, not

only a social topic; and c) build stakeholder inclusion and gender mainstreaming into fieldwork and project assignments. Where curricula are subject to national TVET standards, coordinate revisions with the relevant national TVET authority and in line with the [ASEAN TVET Council](#), which provides a cross-sectoral platform linking education, labour and economic ministries on TVET policy, standards and personnel capacity.

3. **Why this matters:** Curriculum reform at this stage shapes not only skills but career

identity. At current rates, the convergence of renewable energy and fossil fuel degrees in university catalogues will not happen until 2107; the curriculum transformation requires active institutional decisions, not passive market correction.

4. **Barriers addressed:** B2, E1.
5. **Checklist:** Are women featured in curriculum case studies as technical experts and decision-makers, not primarily as energy-poor households or beneficiaries? Has industry input been explicitly sought on what

GEDI competencies employers need? Are assessment methods reviewed to ensure they do not systematically advantage students who can commit more hours outside structured learning time (which disproportionately disadvantages women with care responsibilities)? Is the GEDI module formally assessed and credit-bearing, or an elective add-on? Is the curriculum revision process documented so that it can be updated on a regular cycle? Does the revision align with regional TVET standards developed under the ASEAN TVET Council?

PHASE 3: IMPLEMENT AND ENABLE

STEP 3.1: ESTABLISH SCHOLARSHIP AND MENTORING PROGRAMMES FOR WOMEN IN ENERGY AND STEM PROGRAMMES

1. **Pipeline stage:**



Photo Credit: ASEAN Centre for Energy

2. **Action:** Partner with energy companies, government ministries and development partners to fund scholarships for women in energy-related STEM degrees and TVET programmes, with career mentoring and paid industry placement built in as core components. Scholarships should be explicitly available to TVET students as well as university students, should explicitly target women from rural areas and ethnic

minority backgrounds, and should include a postgraduation tracking commitment of at least three years.

3. **Why this matters:** Financial incentives improve access but are insufficient on their own to change career trajectory. Attrition often occurs at the transition from institution to employer, which financial support alone does not address. Scholarship design can respond to this: structured career support and employer connection are intended to carry recipients through that transition and into sector roles.
4. **Barriers addressed:** B1, D1, E2.
5. **Checklist:** Are scholarships accompanied by structured mentoring and industry placement, or are they financial awards only? Are they available to TVET students on equivalent terms to university students? Is there postgraduation tracking of scholarship recipients for at least three years, including employer, role and seniority level? Are women from rural areas and ethnic minority backgrounds explicitly targeted? Are employer partners required to commit to equitable recruitment consideration for scholarship programme graduates?

STEP 3.2: BUILD INDUSTRY-ACADEMIA-TVET PARTNERSHIPS FOR INCLUSIVE WORKFORCE PATHWAY

1. Pipeline stage:



Education Entry

2. **Action:** Establish formal articulation agreements between TVET institutes and energy sector employers that include: a) codesigned curriculum with explicit gender equity requirements; b) a guaranteed placement pathway with gender equity targets (e.g. minimum 35–40% women across all placement cohorts); c) employer cofunding for female TVET students; and (d) a joint review mechanism at least annually to assess whether curriculum content matches employer needs and whether placement targets are being met.
3. **Why this matters:** Employer codesigned curriculum and coinvestment are the strongest performance predictors in workforce development programmes. Evidence from the United Kingdom's Skills Bootcamps shows a 66% versus 31% positive [employment](#)

[outcome gap](#) between learners whose training was [cofunded by an employer](#) and those who enrolled independently. Without a formal partnership structure, TVET programmes train graduates whom employers have not committed to hire, while employers may identify skills gaps without being engaged in the training system that would close them.

4. **Barriers addressed:** **B3** **C1**.
5. **Checklist:** Is the partnership formalised in a memorandum of understanding with a joint review mechanism and named signatories? Are gender equity targets explicit and numeric in the placement agreement? Are industry partners required to report back to the institution on graduate employment, role type and career progression at 12 and 36 months? Does the curriculum codesign process include women from the relevant industry roles, not only HR representatives? Are cofunding mechanisms legally and administratively straightforward enough for smaller TVET institutes to participate?

STEP 3.3: ENGAGE STUDENTS ON GENDER NORMS AND LEADERSHIP IDENTITY

1. Pipeline stage:



Education Retention

2. **Action:** Establish women's leadership clubs, peer mentoring circles and structured safe-space forums within energy faculties and TVET institutes, resourced by the institution, not dependent on student initiative alone. Connect these structures to professional networks outside the institution, including energy sector women's networks in the relevant AMS. Design complementary programmes for male students on gender-equitable workplace norms, so that students enter the energy sector with shared professional expectations.
3. **Why this matters:** Collective agency and peer support help women develop professional identity and resilience before they encounter workplace structural barriers. Peer-based identity development at the education stage is intended to build professional confidence before workplace structural barriers are

encountered, rather than addressing it later in a career. Survey evidence from the region indicates that most women identify the barriers they encounter [as personal rather than institutional](#) or structural. Internalised psychological barriers (E3) are partially formed in institutional environments. Addressing them at source is more effective than addressing them as career midpoint confidence challenges.

4. **Barriers addressed:** **E3** **B1** **D4**.
5. **Checklist:** Are women's leadership and peer structures resourced by the institution as formal programmes? Do they connect students to professional networks and sector mentors outside the institution? Are male students engaged in complementary programmes? Is there structured follow-up to understand whether participants translate programme engagement into career outcomes? Are students from rural, ethnic minority and lower-income backgrounds specifically included?

PHASE 4: MONITOR, EVALUATE AND LEARN

STEP 4.1: TRACK PIPELINE OUTCOMES FROM ENROLMENT TO CAREER ENTRY

1. **Pipeline stage:**



2. **Action:** Implement a graduate tracking system covering at least three years postgraduation, capturing employment status, employer sector, role type and level, and whether women entered the energy sector, reported annually to the institution's leadership and shared with energy sector employer partners and relevant government ministries. Use findings to adjust scholarship, mentoring, and industry partnership programme design.
3. **Why this matters:** Most institutions track graduation rates but not what their graduates do afterward. Without these data, curriculum

reform, scholarship design and employer partnership decisions are made without knowing whether previous investments produced energy sector entrants.

4. **Barriers addressed:** **A2**, **B3**.

5. **Checklist:** Is tracking conducted for at least three years postgraduation? Is the energy sector specifically identified as a target sector in the tracking data, not aggregated into STEM or engineering categories? Are findings used to adjust scholarship, mentoring and employer partnership programme design annually? Are data published, accessible to researchers, employers and government? Is tracking conducted with appropriate informed consent and data protection provisions?

STEP 4.2: ASSESS INSTITUTIONAL GEDI PROGRESS USING A SELF-ASSESSMENT TOOL

1. **Pipeline stage:**



2. **Action:** Apply a self-assessment tool, adapted for the higher education and TVET context, to assess institutional GEDI practice every two years. Use the output action plan as the basis for the next institutional change cycle. It would be helpful if an external GEDI practitioner for the first cycle is involved. Templates provided in the [Institutional Guide for Gender Transformation in TVET in South Sudan](#) can be helpful for self-assessment and monitoring.
3. **Why this matters:** The GEDI self-assessment tool provides a structured, accessible starting point that produces a concrete action plan rather than only a score, making it directly useful for practitioners who need to identify what to do next, not only where they are.
4. **Barriers addressed:** **A3**, **D4**.
5. **Checklist:** Is the self-assessment tool facilitated by a qualified external GEDI practitioner for the first cycle? Are all departments included in the assessment? Are self-assessment tool results translated into a specific action plan within six months? Is there a follow-up assessment at two years to track progress? Are findings shared with the Ministry of Education and relevant energy sector employer partners?



ASEAN IN PRACTICE

Cambodia: Institute of Technology Cambodia (ITC) Gender-Inclusive Engineering Workshops

What happened: Under ADB's Energy Transition Sector Development Program in Cambodia, the Ministry of Mines and Energy embedded STEM and energy boot camps specifically targeting female high school students in partnership with ITC. The programme mandated that [50% of faculty](#) in engineering capacity-building workshops be female, providing visible role models at the critical point of career decision-making.

Who drove it: Ministry of Mines and Energy, Cambodia; ADB technical assistance.

What it demonstrates: Role model visibility at the point of curriculum and career decision-making

The programme mandated that 50% of faculty in engineering capacity-building workshops be female — providing visible role models at the critical point of career decision-making.

changes enrolment patterns, and a government mandate for gender-balanced faculty creates structural change rather than depending on voluntary participation.

Brunei: Benchmarking public universities' sex-disaggregated data

What happened: Sex-disaggregated data across all three public universities was benchmarked against nine ASEAN states and converted into six costed institutional actions, including gender committee reporting to the vice chancellor, [promotion criteria reform](#), and industry-linked mentoring, with energy research faculty named as a male-dominated pipeline.

Who drove it: Universiti Brunei Darussalam, Universiti Teknologi Brunei and Universiti Islam Sultan Sharif Ali in partnership with University of the Built Environment (United Kingdom).

What it demonstrates: Diagnostic benchmarking converted into costed, accountable institutional actions rather than awareness-raising alone.



Regional, multilateral and development organisations

PHASE 1: ASSESS AND DIAGNOSE

STEP 1.1: MAP EXISTING GENDER-ENERGY FINANCING AND TECHNICAL ASSISTANCE ACTIVITY RELEVANT TO YOUR OWN PROGRAMMES

1. **Pipeline stage:**



2. **Action:** Compile short desk-based scan (using existing public sources, e.g. OECD Development Assistance Committee [DAC] data, ACE/ADB published reviews, partner websites and annual reports) of gender-energy financing and technical assistance already active in the country or subregion where the organisation operates or plans to operate. The goal is to compile a working list sufficient to identify who else is active nearby, so new commitments avoid obvious duplication and target visible gaps. If resources allow, a mapping exercise, covering all active multilateral, bilateral and philanthropic actors by volume, modality, country and pipeline stage can be done to

better identify underfinanced regions and pipeline stages.

3. **Why this matters:** A lightweight scan catches the most glaring duplication or gaps without requiring a dedicated research budget or team.
4. **Barriers addressed:** **F1**, **A2**.
5. **Checklist:** Have you checked at least two or three public sources (OECD DAC, ACE, ADB, other multilateral development bank disclosures) before finalising your programme's country and subsector focus? Have you identified at least one adjacent actor already working in the intended country or subsector to coordinate with, or confirm there is none? Is the scan limited to the organisation's plausible area of activity? Has it been noted, even informally, whether the focus area looks under- or over-served relative to what was found?

PHASE 2: DESIGN AND COMMIT

STEP 2.1: ALIGN TO A SHARED REGIONAL REFERENCE FRAMEWORK RATHER THAN BUILDING PARALLEL INSTRUMENTS

1. **Pipeline stage:**



2. **Action:** Where a regional reference or framework already exists, such as ACE's RE-Gender Roadmap, the GEDI dimension of APAEC 2026 - 2030, and the gender-energy indicators proposed across five dimensions at regional level, new or expanding development partner programmes can map their own gender-energy objectives against it, rather than creating a parallel set of indicators and milestones. Where such [a reference is still being developed](#) or revised, regional,

multilateral and development organisations could advocate for gender-responsive design and measures, map efforts against the nearest regional equivalent, coordinate with partners already active in this space, and avoid duplicating measurement frameworks that may later prove incompatible.

3. **Why this matters:** Fragmentation across donor-specific frameworks is one of the most consistently cited barriers to coherent gender mainstreaming in energy programming globally. Aligning to a shared reference point, rather than each actor defining its own, reduces the reporting burden on national counterparts and makes cross-country comparison possible.

4. **Barriers addressed:** **F2**, **A3**.

5. **Checklist:** Has the programme explicitly checked its objectives against existing regional frameworks before finalising its own indicator set? Where a new instrument is genuinely needed, has this been confirmed through

consultation with other active development partners, to avoid duplication? Is alignment documented in programme design paperwork? Does the programme commit to reporting against shared regional indicators in addition to any internal ones?

STEP 2.2: DESIGN FINANCING INSTRUMENTS AND CONDITIONALITY THAT EXPLICITLY TARGET THE ENERGY WORKFORCE PIPELINE

1. **Pipeline stage:**



2. **Action:** Design blended finance windows, technical assistance grants and lending conditionality that specifically target women's employment, retention, and advancement in the energy workforce, not only energy access or women-owned microenterprise objectives. Apply a minimum GEDI screening threshold to energy lending. One established example is ADB's [four-tier gender categorisation system](#), which classifies every sovereign and nonsovereign project at the design stage and tracks the share of ADB's energy and infrastructure portfolio meeting [gender-responsive design standards](#). Screening criteria should also account for accessibility, addressing the same barriers documented in ADB's gender-responsive finance guidance: simplified application procedures, accessible eligibility requirements, and alternatives to traditional collateral requirements.

3. **Why this matters:** Requiring gender-responsive design as a lending standard helps embed gender considerations across the portfolio rather than relying on one-off project commitments. This approach, supported by technical assistance for country teams and monitored against a portfolio-wide corporate target, creates greater accountability and enables measurable progress.

4. **Barriers addressed:** **F1**, **F2**.

5. **Checklist:** Does the financing instrument set an explicit target for the share of portfolio directed to workforce-focused gender-energy outcomes? Is GEDI screening a condition of approval, not a postapproval recommendation? Is technical assistance funded alongside financing, so implementing teams have support to meet the screening standard? Are underfinanced regions flagged in the Phase 1 mapping given priority access? Do screening criteria accept accessible and alternative eligibility pathways?

PHASE 3: IMPLEMENT AND ENABLE

STEP 3.1: PROVIDE TECHNICAL ASSISTANCE AND PEER EXCHANGE TO KEY DECISION-MAKERS AND STAKEHOLDERS

1. **Pipeline stage:**



2. **Action:** Offer structured technical assistance, training, toolboxes, secondments, peer-learning exchanges, to key decision-makers and stakeholders, including national government counterparts, energy companies and utilities, training institutions, and civil societies implementing their own

GEDI actions, tailored to each recipient's stated need rather than delivered as a standard package. Facilitate cross-country exchange between ASEAN member states at different stages of maturity, and between ASEAN and other regions with relevant experience.

3. **Why this matters:** Technical capacity is consistently the binding constraint on GEDI implementation at the national and organisational level. Peer exchange between

countries and companies facing similar constraints, at similar stages, is frequently cited as more useful by recipients than generic international technical assistance.

4. **Barriers addressed:** A3, A4, F4.
5. **Checklist:** Is technical assistance designed around the recipient's own stated need, established through direct consultation?

Does the programme include cross-country or cross-region peer exchange? Is there a follow-up mechanism after the initial technical assistance engagement, rather than a single training event? Are lessons from technical assistance engagements documented and shared with other development partners active in the region, to avoid repeated relearning?

PHASE 4: MONITOR, EVALUATE AND LEARN

STEP 4.1: CONTRIBUTE TO AND USE SHARED STANDARDISED REGIONAL INDICATORS, RATHER THAN REPORTING ONLY AGAINST INTERNAL METRICS



1. Pipeline stage:



2. **Action:** Report gender-energy workforce outcomes against the shared regional indicator set referenced in Phase 2 (or contribute to establishing one where none exists), in addition to any internal results framework. Participate in regional progress dialogues convened by ACE, ASEAN sectoral bodies or coalition platforms, and publish programme-level GEDI results, including shortfalls, not only successes.
3. **Why this matters:** Without shared and standardised indicators it is difficult to determine whether the region as a whole is progressing, only whether their own programme met its own targets. Public reporting of shortfalls, not only success stories, is what allows the sector to learn from what has not worked.
4. **Barriers addressed:** F2, F4.
5. **Checklist:** Does the organisation report against a shared regional indicator set? Are shortfalls documented and exchanged? Does the organisation participate in at least one regional or cross-organisational progress dialogue annually? Are findings shared in a form that national governments, companies and training institutions can act on directly?

ASEAN IN PRACTICE

ASEAN Centre for Energy: ASEAN Energy Gender Week 2026

What happened: In March–April 2026, ACE hosted the first [ASEAN Energy Gender Week](#) in Manila, bringing together AMS governments, multilaterals, development partners, civil society, academia, people with disabilities and industry to discuss how to integrate GEDSI into ASEAN energy policies and planning. The event built on the 2025 ASEAN Energy Gender Forum and culminated in strengthened regional commitments to mainstream gender equality in the clean energy transition.

Who drove it: ACE, supported by the [World Bank](#), the [Clean Energy Ministerial](#) (CEM), [Oxfam](#) and [ACCEPT](#).

What it demonstrates: A focused regional convening can align governments and partners around a shared GEDSI agenda, turning scattered initiatives into a coordinated regional pathway.

CEM Empowering People Initiative x Tara Climate Foundation Knowledge Development

What happened: CEM's [Empowering People Initiative](#) (EPI) partnered with the [Tara Climate Foundation](#) on a three-session webinar series ending in May 2026. The webinars covered cross-ministry collaboration, TVET and academia partnerships on green skilling, industry and employer engagement, equity-focused pathways, and workforce readiness in Southeast Asia. A toolbox on enhancing livelihoods and creating workforce readiness for clean energy transitions is planned, as of mid-2026, to be

[launched at CEM17](#) in October 2026.

Who drove it: CEM (EPI); Tara Climate Foundation; participating governments and partners.

What it demonstrates: A staged, evidence-building approach (webinar series first, toolbox second), allows multilateral platforms to test regional appetite and gather practitioner input before locking in guidance, rather than publishing a top-down toolbox without prior consultation.

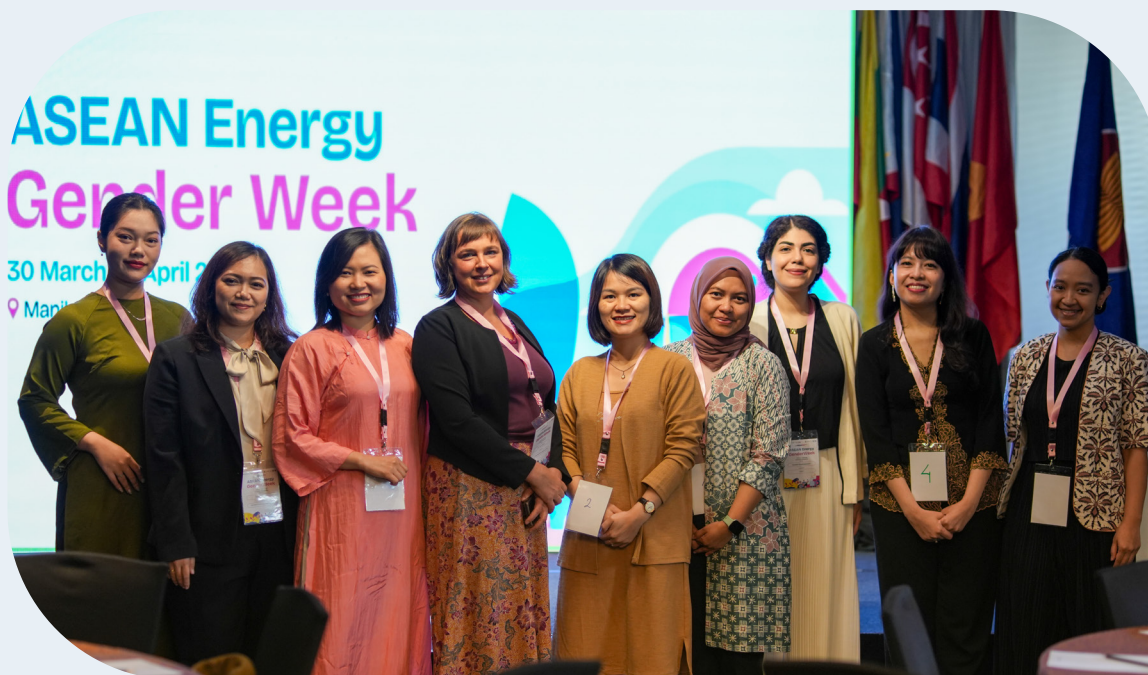


Photo Credit: ASEAN Centre for Energy

Professional networks, NGOs and grassroots workforce initiatives

PHASE 1: ASSESS AND DIAGNOSE

STEP 1.1. IDENTIFY WHERE WOMEN IN THE WORKFORCE ARE STRUCTURALLY UNSUPPORTED

1. Pipeline stage:



reported directly by women already in or entering the energy workforce through member surveys and structured interviews, rather than assumptions. This assessment should explicitly ask what women need from a network or NGO at each pipeline stage, so that findings translate directly into the design choices made in Phase 2.

3. **Why this matters:** Civil societies and professional networks can be effective to address barriers across multiple stages of the women's energy workforce pipeline. As knowledge partners, they also hold knowledge that could otherwise stay invisible to other stakeholders. Without a landscape assessment, new initiatives may duplicate existing networks in well-served subsectors, while leaving grassroots technical trades, renewable energy entrepreneurship and rural TVET graduates without organised peer or advocacy structure.

4. **Barriers addressed:** **A2, E1, E2.**

5. **Checklist:** Does the assessment cover NGOs and networks operating below the national or regional level to include provincial and grassroots organisations? Are women already in technical trades, TVET-trained roles and grid operations included in the survey? Does the assessment identify specific pipeline-stage and subsector gaps, with named organisations mapped against each gap? Does the assessment link each identified gap directly to a specific recommendation? Is the assessment repeated on a fixed cycle (for example, every two years) to track whether new networks have emerged to fill identified gaps?

2. **Action:** Conduct a structured landscape assessment covering: a) existing women's professional networks, alumni associations and NGOs active in the energy sector in the relevant AMS (their membership size, pipeline-stage focus and geographic reach); b) gaps in coverage: subsectors (grid operations, renewable energy technical trades, energy finance), regions and pipeline stages (education, entry, retention, leadership) where no organised network or NGO currently operates; and c) barriers



PHASE 2: DESIGN AND COMMIT

STEP 2.1. DESIGN AND LAUNCH OR STRENGTHEN A WOMEN'S PROFESSIONAL NETWORK IN THE ENERGY SECTOR, STRUCTURED AROUND THE FULL PIPELINE

1. **Pipeline stage:**



2. **Action:** Using the Phase 1 landscape assessment as the direct design input, establish or restructure a national or subregional women's energy professional network with defined pillars mirroring the pipeline, a STEM/education pillar connecting to student associations, a recruitment and entry pillar linking to employer partners, a retention and development pillar offering mentoring and skills-building, and a policy and advocacy pillar tracking APAEC and national GEDI commitments. A comparable model exists in South Asia's [WePOWER network](#), which is structured around five pillars – STEM education, recruitment, professional development, retention, and policy and institutional Change – closely mirroring the full pipeline this network aims to address and offers a useful reference point for pillar design.
3. **Why this matters:** A well-designed and sustained network and community can extend participation beyond a single organisation or country. Designing pillars directly from the Phase 1 gap analysis ensures the network addresses documented needs rather than replicating generic mentorship formats.
4. **Barriers addressed:** [E1](#), [E2](#), [B1](#).
5. **Checklist:** Do the network's pillars map directly onto the specific gaps identified in the Phase 1 assessment? Does the network structure include a named pillar or working group responsible for policy and advocacy engagement with government and regional bodies? Is membership open to women in TVET and grassroots technical roles, not restricted to university-credentialed professionals? Is there a plan lasting beyond the launch year? Is there a defined governance structure, a steering committee or board, with rotating leadership, rather than dependence on a single founder? Is there a confirmed hosting institution and a funding commitment beyond the launch year or is it based on volunteer efforts?



PHASE 3: IMPLEMENT AND ENABLE

STEP 3.1. DELIVER STRUCTURED CROSS-ORGANISATIONAL MENTORING AND SPONSORSHIP THROUGH THE PROFESSIONAL NETWORK



Photo Credit: ASEAN Centre for Energy

1. Pipeline stage:



Entry



Retention



Leadership

2. **Action:** Operate a mentoring and sponsorship scheme through the professional network established in Step 2.1, explicitly designed to cross organisational and sectoral boundaries, pairing women in government, private sector, academia and civil society roles so that participants receive perspective and advocacy from outside their own employer's internal hierarchy. Include a sponsorship track distinct from mentoring, in which senior network members commit to naming mentees (including students) for external opportunities varying from panel invitations and conference speaking slots to adjudication and board positions.
3. **Why this matters:** Cross-organisational mentoring addresses a gap that employer-based programmes cannot close on their own: a woman blocked by glass-ceiling dynamics within her own organisation benefits from sponsorship by senior women outside it who can open doors an internal mentor cannot.
4. **Barriers addressed:** **D3**, **E2**, **E3**.
5. **Checklist:** Does the scheme pair members across different employers and sectors, not only within a single company or ministry? Does the scheme include a distinct sponsorship track, separate from mentoring, where senior members actively name mentees for specific external opportunities? Are mentors and sponsors trained or briefed on what effective sponsorship requires, rather than left to interpret the role informally? Is participation tracked by career outcomes, promotions, new roles, leadership appointments, at regular intervals (e.g. 12 and 24 months)? Is the scheme open to top female students, women from TVET and technical trade backgrounds, or limited to university-credentialed professionals already in midcareer roles?

STEP 3.2. ADVOCATE FOR GEDI IMPLEMENTATION AND SUPPORT ACCOUNTABILITY MECHANISMS

1. Pipeline stage:



2. **Action:** Through established networks and available resources, engage with governments, universities and TVET institutions, and industries to support the implementation of GEDI commitments, while helping track progress against stated goals and bringing practitioner perspectives into ongoing dialogue. This means [formalising and institutionalising](#) cross-sector mechanisms so that women not only participate in the energy transition, but also have opportunities to take on decision-making and leadership roles across the energy value chain. Accountability can be supported through a small set of published commitments, regular (critical) progress reviews, and mechanisms for feeding observations back into policy dialogue.
3. **Why this matters:** Civil society and professional networks can play an important role, bridging the gap between policy commitments and implementation by helping translate broad GEDI

goals into practical follow-up, feedback and learning. Carrying observations and what women report as students, trainees, and employees into the rooms where policy and program decisions are made ensures that lived experience stay at the heart of implementation rather than being summarised away by the time it reaches decision-makers.

4. **Barriers addressed:** [A1](#), [A3](#), [E1](#).
5. **Checklist:** Does the network track a small set of specific GEDI commitments or actions that are relevant to its work? Is there a regular process for sharing observations or feedback with the relevant government, institutional or industry platform? Has the network secured a formal role, invitation or participation channel in at least one GEDI coordination mechanism or dialogue platform? Does the network's engagement draw on its own evidence, member experience or practitioner insights, rather than relying only on external reports? Is there a communication approach for sharing progress, good practice and areas needing more attention in a constructive and solution-oriented way?

PHASE 4: MONITOR, EVALUATE AND LEARN

STEP 4.1. TRACK MEMBER CAREER OUTCOMES AND NETWORK REACH AGAINST THE PIPELINE

1. Pipeline stage:



2. **Action:** Establish a standing monitoring system tracking, for network and NGO programme participants. Entry into paid energy sector roles, promotion and retention outcomes, and participation in leadership or advocacy roles, disaggregated by pipeline stage and by subsector. Report results annually against the specific gaps identified in the Phase 1 landscape assessment, so the network can demonstrate whether it has closed the gaps it was designed to address.
3. **Why this matters:** Membership size and event attendance are commonly used as proxy indicators of network success, but they do

not necessarily demonstrate whether the network changed career outcomes for the women it serves. Tying Phase 4 monitoring explicitly back to the Phase 1 gap analysis closes the loop between diagnosis and demonstrated results, a link that is frequently missed in reporting.

4. **Barriers addressed:** [F2](#), [F4](#).
5. **Checklist:** Are outcomes tracked by pipeline stage and subsector? Is reporting explicitly compared with the specific gaps documented in the Phase 1 assessment? Are data collected with participant consent and shared back with members in an accessible format? Is the monitoring system reviewed and adjusted at least every two years as the Phase 1 landscape assessment is repeated?

ASEAN IN PRACTICE

Women in Wind Global Leadership Programme (GWEC and GWNET)



By its sixth cohort in 2024, the programme had grown to nearly four times its original intake — and an independent five-year evaluation found a “profound impact” on participants’ careers.

What happened: The [Global Wind Energy Council](#) (GWEC), in partnership with the Global Women’s Network for the Energy Transition (GWNET), launched the Women in Wind Global [Leadership Programme](#) in 2019 to accelerate the careers of women in the wind industry across emerging wind markets, including Indonesia, the Philippines, Thailand and Viet Nam. The year-long programme pairs each participant with a dedicated senior mentor, combines this with leadership, communication, and industry-visibility training; a study tour; and networking access at major international energy events. By its [sixth cohort in 2024](#), the programme had grown to nearly four times its original intake, and its first independent [five-year impact evaluation](#), released in 2025, concluded the programme has made a “profound impact” on participants’ careers and is scalable for further expansion.

Who drove it: GWEC and [GWNET](#), with mentorship provided by senior industry professionals across the global wind sector.

What it demonstrates: A cross-organisational, cross-border mentorship and sponsorship model can sustain and scale over multiple years when paired with structured leadership training and visible industry access, offering a proven model that ASEAN-based networks can adapt or plug into directly.

Women in Energy Viet Nam (WEVN) and the Viet Nam Energy Women Network (VEWN)

What happened: With support from the Energy Support Programme of the Deutsche Gesellschaft für Internationale Zusammenarbeit’s (GIZ – the German Agency for International Cooperation), [Women in Energy Viet Nam](#) (WEVN) launched in 2022 as the country’s first network connecting women from energy businesses, utilities, research institutes, training institutions, media and NGOs. The network was formalised into the Viet Nam Energy Women Network (VEWN) in 2023, structured around five

working groups covering network establishment, capacity building, communication, advocacy and networking, with a coordination board and GIZ-supported secretariat. In 2025, WEVN and GIZ Viet Nam, in collabouration with the World Bank’s WePOWER network, launched [HerPower Viet Nam](#), a leadership and green-skills programme specifically for young women, combining training, global learning-platform access and a “Solve-a-thon” for real-world problem-solving.

Who drove it: GIZ Viet Nam's Energy Support Programme, WEVN/VEWN's coordination board, and the [World Bank's WePOWER network](#) as an international partner.

What it demonstrates: A national network can evolve deliberately from an informal forum into a structured, multipillar organisation with defined governance, and can extend its reach down the pipeline to early-career and student-age women through a dedicated leadership track, rather than serving only established professionals.



Credit: Women in Energy Viet Nam

Youth for Energy Southeast Asia (Y4E-SEA)

What happened: Cofounded in 2023, Youth for Energy Southeast Asia ([Y4E-SEA](#)) is a youth-led, nonprofit network connecting young people across Southeast Asia working on or seeking to learn about the just energy transition. With a core team of around 30 members drawn from across the region, the network organised the flagship [Southeast Asia Youth Energy Forum](#) (SAYEF), first convened in Bali in 2023 and held again in Kuala Lumpur in 2025 with over 2 000 participants, bringing together youth voices with policy makers and industry on regional energy transition priorities. Its cofounder has also represented ASEAN youth at international platforms, including Sustainable Energy for All (SEforALL) and TED's SDG7 Global Youth Ambassador for Southeast

Asia and youth delegate to the 28th Conference of the Parties (COP).

Who drove it: A regional group of youth cofounders and core members, supported by international platforms such as SEforALL and TED.

What it demonstrates: A youth-specific network, distinct from but complementary to established women's professional networks, can create an early entry point into the regional energy transition conversation, and can be linked to national or sector-specific women's networks to strengthen the education-to-entry stage of the pipeline rather than duplicating retention- and leadership-stage work already under way elsewhere.



Photo Credit: Youth for Energy Southeast Asia

LOOKING AHEAD



ASEAN now has a stronger regional foundation for advancing gender equality and inclusion in the energy transition than it did only a few years ago. The APAEC 2026–2030 and ASEAN Gender Mainstreaming Strategic Framework 2021–2025 provide important regional frameworks for integrating gender considerations into broader policy and planning processes, while the ASEAN Renewable Energy Gender Roadmap serves as a valuable reference document to guide efforts toward more gender-responsive approaches in the renewable energy sector.

Women nevertheless remain underrepresented across the energy workforce in ASEAN, especially in technical and leadership roles, and the education-to-employment pipeline continues to narrow at each stage. Increasing women's participation in the energy workforce therefore cannot be limited to policy endorsement alone. Progress is likely to depend on how far regional commitments are translated into coordinated action by governments, companies, educational institutions, multilateral partners, and women's professional networks and civil society organisations working on the ground. In that context, regional and multilateral actors are best understood not as separate drivers of a parallel agenda, but as conveners, connectors and enablers of action already taking shape across ASEAN. The most promising pathway may lie not in creating entirely new architectures for every challenge, but in using existing regional and global platforms more strategically: to align indicators, strengthen peer learning, expand visibility for women in energy, and connect ASEAN actors to tools, networks and practical resources that already exist internationally.

Insights from workshop and consultation sessions with ASEAN stakeholders highlighted several areas where further action and collaboration could help advance gender-equitable participation in ASEAN's energy transition. These discussions pointed to the importance of strengthening regional exchange, increasing visibility of women's contributions to the sector and connecting ongoing ASEAN efforts with relevant international initiatives.

One important opportunity lies in using regional and multilateral platforms more deliberately as spaces for cooperation and exchange. Existing ASEAN and international mechanisms can help connect ministries, companies, universities and TVET institutions, development partners, and women's professional networks that often work on related challenges but do so separately. Their added value is not only in setting direction, but in helping these actors learn from one another, adapt practical models across countries, and build more regular forms of collaboration around workforce participation, retention and leadership.

A second opportunity lies in the more intentional use of media and social media. The barriers identified across this toolbox are sustained not only by institutional gaps, but also by public perceptions and social norms about who belongs in technical and leadership roles in energy. More systematic visibility for women as engineers, technicians, managers, researchers, entrepreneurs and students can help shift those perceptions over time, while also making scholarships, jobs, mentorships and examples of good practice more visible across the region. This aligns closely with the communications, ambassador and recognition approaches already used in international equality-in-energy efforts, where visibility is treated not as an accessory to implementation but as part of how participation expands.

There is also value in continued engagement with international initiatives that align with these goals and support ASEAN-led efforts. For instance, the CEM Equality in Energy Transitions Initiative is focused on advancing women's participation in clean energy through data, policy exchange, networking and practical collabouration. For ASEAN stakeholders, this offers a useful channel through which regional experience can connect to broader international learning, while another initiative such as CEM's EPI can further contribute to linking energy transition debates to local innovation, inclusion and people-centred approaches. These international platforms are most valuable when they complement existing ASEAN processes, supporting regional actors in accessing wider networks, knowledge and resources while maintaining national and regional ownership.

The Equal by 30 Campaign is another established example of an international initiative that seeks to advance gender equality in the clean energy sector by 2030. Through public commitments focused on equal pay, equal leadership and equal opportunities, the campaign offers governments, companies and other organisations a framework for articulating and sharing their own



commitments within a broader international community of practice. In the ASEAN context, Equal by 30 could serve as a useful opportunity for engagement, while allowing stakeholders to identify approaches that best align with their own priorities and contexts.

Gender-equitable implementation is a foundation for more inclusive energy transitions. By embedding gender equality into policies, institutions, workplaces and education systems, stronger pathways can be created for the participation of other underrepresented groups, helping to ensure that the benefits of the energy transition are shared more broadly.

While this toolbox provides practical guidance and examples, meaningful progress will depend on sustained action, continuous learning and collabouration. Through continued regional cooperation and international exchange, ASEAN can both contribute to and benefit from the growing body of knowledge and practice on just, inclusive and gender-equitable energy transitions, ensuring that progress is measured not only by technological change, but also by who is able to participate in, lead and benefit from the transition.



EQUALITY
IN ENERGY TRANSITIONS
INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

TOOLBOX Gender Equality and Inclusivity in Southeast Asia's Energy Workforce