





Clean Energy for Development

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Powering an Inclusive Energy Future: Driving the G20 from Commitment to Implementation

As the world accelerates toward a clean energy future, the question is no longer whether the transition will happen, but how equitable, inclusive, and sustainable it will be. Under Brazil's 2024 presidency, the G20 endorsed a set of 'Principles for Just and Inclusive Energy Transitions', recognising that the shift to renewable energy must do more than reduce carbon emissions; it must also address deep-rooted inequalities and ensure that historically marginalised groups, particularly women and youth, are active participants and beneficiaries.

Yet turning principles into practice remains a critical challenge. Many G20 countries face a common set of barriers: unequal access to clean energy opportunities, persistent gender and generational divides in employment, and financing systems that exclude micro-, small- and medium-sized enterprises (MSMEs) led by women and youth. Addressing these gaps requires not only national action but also collective leadership.

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The global context: clean energy and just transitions

The global transition to clean energy is accelerating, driven by declining technology costs, energy security concerns, and climate imperatives. However, women and youth continue to be under-represented across renewable energy value chains, particularly in technical, decision-making, and entrepreneurial roles.

Brazil's G20 presidency has prioritised just and inclusive energy transitions through a framework of principles that emphasise social inclusion, poverty reduction, and sustainable development. These principles recognise that energy transitions must be designed not only to achieve environmental goals but also to advance economic and social justice.

South Africa, in the year of its presidency, can help drive the G20 from commitment to implementation. Drawing on findings from the international research initiative Clean Energy for Development which spans 27 countries, this brief identifies actionable strategies to embed gender and youth inclusion in the global clean energy transition.

Evidence and lessons from international research

Women and youth can be powerful agents of change in the clean energy transition when given appropriate support and opportunities, but currently they face some significant barriers to participation and advancement. Their participation is often concentrated in lower echelons of the energy supply chain, primarily in sales and distribution rather than design and manufacturing, with evidence of cultural and gender biases limiting opportunities, particularly in technical roles.

Financial access is a critical barrier, particularly where women entrepreneurs express strong interest in renewable energy technologies but face prohibitive upfront costs. Traditional financing mechanisms often require collateral that women cannot provide. Women often prefer community-based financial systems over formal microcredit due to high interest rates and repayment concerns. In addition, social norms often prioritise male employment during job scarcity, which compound challenges for women.

Some countries have demonstrated that embedding inclusivity within renewable energy policies can accelerate growth and sustainability. In Morocco, women and youth are increasingly integrated into the sector through specialised training programmes, targeted employment policies, and entrepreneurship support. This inclusion has helped Morocco achieve 38 per cent of its energy capacity from renewables, positioning it as the world's most attractive renewable energy market in 2022.

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A framework for implementation

Inclusion of women and youth

Current gap: Women and youth are often excluded from energy policy development processes, leading to policies that fail to address their specific needs and barriers.

Recommendation: Establish formal mechanisms for women and youth participation in energy policy development.

- Create a Clean Energy Gender and Youth Advisory Council with representation in key decision-making forums.
- Mandate gender and youth impact assessments for all energy policies and programmes.
- Ensure diverse representation in public consultations by holding dedicated sessions for women and youth stakeholders.

Case example: Morocco's success in becoming a leader in renewable energy adoption stems partly from inclusive policy development processes that ensure diverse stakeholder participation.

Intersectional approaches to energy planning

Current gap: Energy planning often fails to account for how gender intersects with other social identities and factors.

Recommendation: Adopt intersectional approaches in energy data collection, analysis, and planning.

- Develop disaggregated data collection frameworks that capture multiple dimensions of identity (gender, age, location, income level).
- Commission research on energy needs and barriers faced by different demographic groups.
- Establish energy access goals specific to under-served populations and regions.

Case example: Research from <u>Kenya</u> demonstrates how geographic location and socioeconomic status significantly affect women's ability to participate in clean energy value chains, highlighting the need for tailored approaches.

Workforce transformation through skills development

Current gap: Technical and business skills gaps limit the ability of women and youth to access quality employment and entrepreneurship opportunities in the renewable energy sector.

Recommendation: Implement comprehensive skills development programmes specifically designed for women and youth.

• Establish a Clean Energy Skills Initiative targeting 40 per cent female participation in technical training programmes.

Some countries have demonstrated that embedding inclusivity within renewable energy policies can accelerate growth and sustainability.

- Develop apprenticeship and mentorship programmes that connect women and youth with established industry professionals.
- Create specialised curricula that combine technical knowledge with business and financial literacy.

Case example: In <u>Senegal</u>, research showed that targeted capacity building for women entrepreneurs, including financial literacy education, entrepreneurial management, and renewable energy technologies knowledge, significantly improved business outcomes.

Financing innovation

Current gap: Traditional financing mechanisms often exclude women and youth due to collateral requirements, high interest rates, and complex application processes.

Recommendation: Develop innovative financial instruments specifically designed to overcome barriers faced by women and youth.

- Establish a dedicated Clean Energy Gender and Youth Fund with tailored financial products.
- Create a loan guarantee programme to reduce collateral requirements for women and youth entrepreneurs.
- Support community-based financial systems like savings groups that align with existing practices.
- Develop results-based financing mechanisms that reward inclusive business models.

Case example: Research in <u>MENA</u> countries shows that MSMEs play a crucial role in implementing decentralised energy systems, but require targeted financial support to overcome initial barriers to entry.

Conclusion and call to action

The G20 represents a vital platform for embedding justice and equity into global energy governance. In the year of its presidency, South Africa has an opportunity to influence the transformation of energy systems in ways that simultaneously address climate change, energy access, and social equity.

The recommendations outlined in this policy brief not only provide a roadmap for domestic transformation, but also a powerful contribution to shaping global norms and accountability frameworks.

We call on South Africa to lead a multilateral push within the G20 to turn just transition principles into concrete policy action - especially by amplifying the voices of women, youth, and under-represented communities.

The opportunity to influence the G20 towards a truly inclusive energy future is now, to ensure that the clean energy transition is truly just and inclusive, leaving no one behind.

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Further information about the featured projects

Evidence for Informing Optimisation and Scaling of Youth and Women Led Clean Energy Enterprises and Business Models in Kenya, Malawi, Uganda & South Africa

led by the African Centre for Technology Studies (ACTS)

This project seeks to generate evidence to inform piloting and scaling of clean energy best practices that have empowerment and transformational potential for women and youth. Working with investors, implementers, and funders of low-carbon energy initiatives, it will enhance our understanding of the systemic factors that enhance or constrain women and youth's access to business opportunities in clean energy innovation and entrepreneurship.

<u>Mobilization of Renewable Energies by Women and Young</u> <u>Entrepreneurs for Empowerment Sustainable Economy in Senegal</u> led by Desjardins International Development (DID)

This project aims to increase the participation of women and youth in renewable energy value chains (REVCs) to foster the transition to clean energy in Senegal. The transition is slow to materialise despite the growing availability of technological solutions and the downward cost trend. The research investigates the systemic barriers women and youth face as suppliers and promoters to access business opportunities/ solutions in clean energy value chains and to promote energy innovations.

The Role of MSMEs in Fostering Inclusive and Equitable Economic Growth in the Context of the Clean Energy Transition in MENA led by the Economic Research Forum (ERF)

This project aims to contribute new knowledge to foster a clean energy transition that helps generate more and better employment opportunities for women and young people. It also focuses on MSMEs, through surveys to analyse how they adjust to the phase out of energy subsidies and the challenges in transitioning to renewable sources of energy.

Further reading

Baruah, B. et al. (2025) <u>Powering Change: The Critical Role of Women and Youth in Sustainable Energy Transformation</u>, Clean Energy for Development: A Call to Action (CEDCA) Research for Policy and Practice, Brighton: Institute of Development Studies, DOI: <u>10.19088/CEDCA.2025.001</u>

Kingiri, A.; Amakobe, W. and Cheruiyot, M. (2025) <u>Enhancing Skills and Capacities for Women and Youth Clean Energy Enterprises: Lessons from Kenya</u>, EVI-SICEE Research Brief No. 01, Nairobi: African Centre for Technology Studies

MacEwen, M. and Evensen, D. (2021) 'Mind the Gap: Accounting for Equitable Participation and Energy Democracy in Kenya', Energy Research & Social Science 71, DOI: 10.1016/j. erss.2020.101843

Ali, N.M. and Ramadan, R. (2024) <u>Gender Equality, Climate Change, and Clean Energy in the Middle East and North Africa</u>, ERF Policy Research Report 49, Cairo: Economic Research Forum

About

The Clean Energy for Development: A Call to Action (CEDCA) research initiative generates evidence to inform public policy reforms and innovations in support of a transformative clean energy transition where women and youth can play a key role in greening energy through MSMEs. Supported by the International Development Research Centre (IDRC), CEDCA brings together 12 projects across 27 countries, aiming to support the knowledge ecosystems that can lead to more inclusive outcomes and efficient investments in sustainable energy transitions in low-income countries.

This report was published by the CEDCA Knowledge Translation and Communications Programme, led by the Institute of Development Studies (IDS), which supports the translation of knowledge emerging from the CEDCA initiative. IDS works closely with IDRC and the research partners to identify coherent bodies of knowledge on clean energy transition, MSMEs, women and youth that cut across the research portfolio, and aim to maximise the learning generated by the research and deepen engagement with governments, civil society and the scientific community.

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