



UNITED NATIONS
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20 | Pathway to a
24 | Just Energy Transition
for Eswatini

ESWATINI'S GREEN LEAP: POWERING A SUSTAINABLE FUTURE THROUGH JUST ENERGY

| Pathway to a Just Energy Transition for Eswatini

Pathway to a Just Energy Transition for Eswatini

The Just Energy Transition is built on three fundamental principles which are a foundation to any Just Energy Transition (JET) pathway:

Sustainability

- **Environmental Stewardship:** Sustainability involves minimising negative impacts on the environment by reducing greenhouse gas emissions, pollution of water sources and negative effects on biodiversity
- **Resource Efficiency:** Energy efficiency measures, smart grids, and circular economy approaches contribute to sustainability by efficiently using energy resources.
- **Long-Term Viability:** Energy systems must remain viable for future generations. This includes maintaining biodiversity, protecting ecosystems, and addressing climate change.

Inclusivity

- **Access for All:** Ensuring everyone has access to clean, affordable energy. This includes marginalised communities, rural areas, and low-income households. In such communities, off-grid renewable energy solutions are the most economically viable options, as are complementary initiatives such as clean energy.
- **Gender Equity:** Women often play a central role in energy use and management. Inclusivity requires empowering women in decision-making, entrepreneurship, and technology adoption. Ensuring women are active throughout the value chain is essential, as renewable energy provides the best opportunity for power equality.
- **Community Participation:** Just energy transition provides for the involvement of local communities in energy projects. Their knowledge, needs, and preferences should shape the transition to ensure the best fit.

Equity

- **Fair Distribution:** Equity ensures that benefits and costs are distributed fairly. Energy should be available

to all (Leaving No One Behind), and vulnerable communities should not bear disproportionate burdens during the transition.

- **Social Justice:** Energy access is not socially neutral, and JET provides an opportunity to address historical inequalities. Consider the impact on rural communities living in mountainous/hard-to-reach areas, minorities, and those living in energy poverty.
- **Affordability:** Energy costs should not hinder basic needs or prevent energy production for livelihood and job creation. Equitable pricing and subsidies can mitigate affordability challenges.

The Pathway to a JET Requires Strengthening Institutional Capacities

- **Whole-of-Government and Whole-of-Society Approaches:** Energy generation, Distribution, and Costing require a whole-of-government approach, including a look at the health and environmental impacts. This approach emphasises collaboration across government agencies, civil society, and private sector stakeholders. It ensures a coordinated effort to address energy transition opportunities and challenges.
- **Private Sector Partnerships:** Engaging with private companies is crucial. Public-private partnerships can drive innovation, investment, and implementation of sustainable energy solutions. Policy and Regulatory Frameworks
- **Incentives for Renewable Energy Investments:** Governments can provide financial incentives such as tax breaks or subsidies to encourage investment in renewable energy projects.
- **Supporting Innovation Financing Models:** Facilitating access to financing options for clean energy innovations helps accelerate their adoption. It also provides an entry point to leverage the youth's demographic dividend and the academia's development intelligence.
- **Supporting Vulnerable and Marginalised Populations:** Ensuring that energy transition policies consider the needs of vulnerable communities is essential. Communities should not have to suffer increased health vulnerabilities and water scarcity to provide affordable energy for urbanites. Community

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Engagement and Participation

- **Inclusive Decision-Making Processes:** Involve local communities, indigenous groups, and other stakeholders in energy planning and decision-making. Their perspectives are valuable for equitable outcomes.
- **Capacity Building and Education Programs:** Educating the public about energy transition benefits, technologies, and opportunities fosters support and participation. This provides an opportunity to build skills for an evolving global value chain.

Monitoring, Evaluation, and Oversight

- **Metrics for Success:** Establish clear indicators to measure progress toward energy transition goals. These could include reduced emissions, increased renewable energy capacity, and improved energy access.
- **Continuous Improvement and Adaptation:** Regularly assess and adjust strategies based on data and feedback to ensure effective implementation.

A Just Energy Transition

- **Contributes towards Energy Security and Sovereignty:** Eswatini possesses rich and diversified renewable energy sources, including biomass, thermal, hydro and wind. It is a core part of the National Energy Plan in reducing dependence on imported energy and increasing energy sovereignty.
- **Aligns with National Policies:** Eswatini's National Energy Policy (2018) and Energy Master Plan 2034 outline a roadmap for this transition, emphasising policy reforms, capacity building, and technological innovation.
- **Contribution to Climate Goals:** Eswatini's Nationally Determined Contributions (NDCs) under the Paris Agreement aims to increase renewable energy to 70% by 2034, reduce GHG emissions by 4% by 2030, and improve rural energy access through off-grid solar solutions.

- **Empowerment of MSMEs and Green Job Creation:** A just energy transition can stimulate job creation, innovation, and investment opportunities in renewable energy and energy efficiency sectors. Empowering Micro, Small, and Medium Enterprises (MSMEs) to actively participate in the just energy transition as energy generators and transmitters, operating and maintaining renewable investment, and boosting green jobs in an emerging value chain.
- **Social Inclusion:** A just energy transition will support the government's agenda of 100% access to energy for all and support increased productive use of energy as part of private sector development and economic growth. It is the best alternative to reach hard-to-reach and more economically unviable areas. It will also ensure that the benefits of the energy transition are shared widely and the costs are not borne disproportionately by the most vulnerable by reducing energy costs, increasing productivity, and sharing benefits equitably among smallholding farmers, women, and youth.

Regional Geopolitics and Energy Security

- At present, nine Member States of SADC, including Eswatini, have pooled their electricity grids into the Southern African Power Pool (SAPP), creating a competitive common market for electricity in the region. The SAPP coordinate the planning and operation of the electric power system among member utilities. It also provides a forum for regional solutions to electric energy problems. Projects to interconnect Angola, Malawi and Tanzania are currently being implemented, and via Tanzania, the SAPP grid will be connected to the Eastern Africa Power Pool, potentially deepening the electricity market. SADC has significant renewable energy resources that can be exploited to generate clean electricity, including solar and hydro. For example, Inga Falls has a potential 40-70 GW capacity. However, according to SAPP, the region's energy mix is dominated by fossil fuel (mostly coal), contributing 70% to the electricity generating mix¹.
- SADC, through SAPP, has been pushing for regional policy harmonisation and fostering regional electricity trading; countries have favoured the energy sovereign route of attempting to attain national self-sufficiency and preferring bilateral and

¹ Statistics 2019-20.pdf (sapp.co.zw)

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long-term supply agreements. The lack of adequate transmission infrastructure has constrained regional trade. Some countries with excess supply, such as Angola and Tanzania, are constrained from supplying deficit countries. Several countries like South Africa, Zimbabwe and Zambia are also experiencing power shortages for several reasons, including inadequate investments in generating and infrastructure maintenance, drought-induced water shortages, and increasing electricity demand. Despite these challenges, the regional power system would benefit from increased cross-border electricity trade, partly as a balancing mechanism against supply fluctuations from renewable energy sources and reduce the need for individual countries, particularly those with relatively small demand like Eswatini, to invest in fossil-powered generation.

policymakers in putting in place packages of targeted public interventions to address these risks. Each public intervention acts in one of three ways: reducing, transferring or compensating for risk. The aim is to cost-effectively achieve a risk-return profile that catalyses private sector investment at scale.



Key Lessons for Eswatini

Eswatini can draw lessons from the South African Renewable Energy Independent Power Producer Procurement Programme (REIPPPP), which has managed to attract 200 billion dollars² in private investment into the renewable energy sector. It added significant amounts of wind and Solar PV capacity to the national grid, created jobs, lowered electricity tariffs through energy auctions and competitive bidding, and facilitated technology transfer and capacity building within the renewable energy industry.

Eswatini can also learn from Mauritius on increasing biomass/bagasse electricity generation through a transparent and supportive government policy framework and close collaboration between the sugar industry and the power sector. It can integrate bagasse power generation into its sugar production process, continuously invest in advanced technologies to improve energy conversion efficiency, seamlessly integrate bagasse-based power into the grid, and ensure economic viability through viable feed-in tariffs to encourage investment³.

The country could use policy derisking instruments like those under UNDP's Derisking Renewable Energy Investment (DREI) framework to reduce this risk premium. The framework systematically identifies the barriers and associated risks which can hold back private sector investment in renewable energy. It then assists

² Renewable Energy – SANEDI

³ https://www.un.org/esa/sustdev/sdissues/energy/op/parliamentarian_forum/deepchand_bagasse.pdf



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