



Policy Instruments for a Just and Inclusive Transition in the Energy, Transport, and Industry Sectors in East Africa

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Summary

The EfD Policy Day 2024 gathered more than 100 participants from across East Africa to discuss equitable and inclusive transitions in the energy, transport, and industry sectors. With keynote presentations, group discussions, and a panel session, participants shared insights and offered actionable recommendations on how to ensure that transitions are just and inclusive. Key takeaways included the need for integrating gender equity, strengthening financing models, and building local capacity to implement sustainable energy and transport solutions.

Introduction

The EfD Policy Day aimed to foster dialogue among policymakers from Ethiopia, Kenya, Rwanda, Tanzania, and Uganda, as well as researchers, practitioners, and other stakeholders on Policy Instruments for a Just and Inclusive Transition in the Energy, Transport, and Industry Sectors in East Africa. The event featured four keynote presentations, interactive group discussions, and panel reflections on how to make these transitions equitable, particularly for marginalized communities in East Africa.

Presentations

Moderators Dr. Helen Osiolo and Dr. Daniel Slunge introduced the day's presentations, beginning with welcoming remarks from Prof. Rich¬ard Mulwa, EfD Kenya's Center Director and Prof. Justus Munyoki, Director Research, Innovation and Enterprise, both at the University of Nai¬robi. Eng. Benson Mlambo Mwakina, Director of Renewable Energy at the Ministry of Energy & Petro¬leum in Kenya, speaking on behalf of the Principal Secretary, State Department for Energy, outlined key challenges for a sustainable energy transition in Kenya and reaffirmed the country's leadership in renewable energy.

These introductory presentations set the stage for four insightful keynote presentations that followed.

Ms. Raavi Aggarwal (Indian Statistical Institute, Delhi) – Energy Access and Equity in East African Energy Transitions

Raavi Aggarwal highlighted the ongoing reliance on biomass for cooking in East Africa and the need to transition to cleaner energy. She also discussed the potential of carbon pricing and cash transfers as tools for supporting this transition, while emphasizing the disproportionate burden on women in energy access. Financial inclusion is a positive step towards curbing leakage and corruption, for example through providing LPG subsidies directly to beneficiaries bank accounts.



"Large-scale interventions that provide energy access can stimulate clean energy transitions and generate positive spill-overs to the economy," said Raavi Aggarwal.

Professor Marc Jeuland (Duke University) – Financing Just Energy Transitions

Marc Jeuland focused on the financing challenges for energy transitions in low- and middle-income countries (LMICs), noting that Africa has attracted less than 10% of projected investments for low-carbon energy. He called for innovative public-private partnerships and localized solutions to unlock the region's energy potential and presented an initiative in this direction the Just Energy Transition LAB (JET LAB).



"To achieve a just transition, investment must reflect the unique social, economic, and environmental contexts of each country," noted Jeuland.

Mr. Sylvester Makaka (Kenya Association of Manufacturers) – Scaling Up Energy-Efficient Systems in Kenyan Manufacturing

Kenya is the most industrialized country in East Africa and plans to increase the manufacturing sector from 14 to 20% of the GDP by 2030. The industry uses 60% of the country's energy, highlighting the need for clean energy and energy efficiency. Sylvester Makaka outlined key policies such as the Energy Management Regulations and the Kenya National Energy Efficiency Strategy, which target 2.8% annual energy savings. Makaka also called for technology partnerships and capacity-building to promote energy efficiency.



"Energy efficiency in manufacturing is critical for reducing operational costs and driving economic growth, creating jobs, ensuring energy security, and aligning with global sustainability goals," said Sylvester Makaka.

Eng. Kelvin Ndangili (Nairobi Metropolitan Area Transport Authority) – Barriers and Opportunities for a Low-Carbon Transport System in Kenya

Kelvin Ndangili's presentation focused on the challenges and opportunities in transitioning Nairobi's transport system to a low-carbon model. He highlighted the development of Bus Rapid Transit systems and the importance of a workforce transition strategy to avoid job losses as the sector evolves.



"Low-emission vehicles alone will not solve Nairobi's congestion and emissions problems. A dual approach that improves public transport systems is key," said Kelvin Ndangili.

Group discussions

The participants were divided into thematic groups to discuss actionable strategies for promoting energy access, sustainable transport, and energy efficiency.

1. Energy access and equity

Key points from the discussion on strategies for improving energy access and equity in underserved communities included:

- Effective strategies: Participants highlighted innovative financing models, solar installations, and biogas adoption in rural areas as effective strategies, along with gender-inclusive policy Cross-subsidization processes. has been successful in several countries, alongside awareness campaigns using opinion leaders to influence behavior change. For example, Tanzania's 2023 clean cooking program positively impacted women and children, while Kenya has actively encouraged women enter fields of science, technology, engineering, and mathematics. Other successful approaches discussed included vulnerabilitybased subsidies and carbon credit schemes.
- **Challenges**: Key challenges identified included the affordability of clean energy technologies, infrastructure gaps, and the need for capacity development in clean energy. Access to

credit remains a hurdle for small clean energy companies. Participants also noted the importance of decentralizing policies to cater to specific regional needs, overcoming cultural barriers, and addressing the low involvement of the private sector. Political will was also flagged as essential for driving progress.

2. Sustainable and inclusive transport systems

Participants discussed lessons learned from green transport initiatives and how to make public transport systems more inclusive.

- Success stories and opportunities: The 2024 opening of an electric high-speed train between Dar Es Salaam and Dodoma in Tanzania has halved travel time compared to buses and provided a more sustainable alternative to air travel. In several of the East African countries, fiscal incentives for electric mobility have been implemented, including reduced taxes on e-vehicles and lower charging tariffs, encouraging the use of less polluting vehicles. Specific campaigns have also targeted the conversion of motorbikes to electric models, reducing dependence on conventional fuels. Other opportunities identified include implementing parking fees, congestion charges, and investments in safe, reliable public transport to help reduce congestion.
- Challenges: Funding for a more sustainable and inclusive transport system was raised as a major challenge. Public-private partnership (PPP) can be one way forward, but infrastructure projects in the transport sector are considered a high risk in the region due to the uncertainty in tenure. Participants also highlighted accessibility and safety issues in public transportation, noting examples such as Brazil's dedicated metro wagons for women to enhance safety. There is also a challenge in initiatives to promote e-vehicles before infrastructure and reliable electricity access are in place.

3. Energy efficiency in the industrial sector

Discussions centered on technological innovations, such as smart meters and heat recovery systems, along with policy incentives to promote energy-efficient practices across industries.

• **Opportunities**: Participants highlighted several promising strategies to enhance energy

efficiency, including reducing heat leakage and implementing heat recovery systems. Establishing minimum energy performance standards and conducting regular energy audits were seen as critical steps. Awareness-raising campaigns and upgrading industrial equipment to meet energy-efficient standards were also discussed as effective ways to drive improvements. Installing smart meters, enhancing insulation, and introducing carbon financing initiatives were further suggested as impactful measures.

• Challenges: Key barriers to the adoption of energy-efficient practices include limited financing options and a reluctance to adopt new technologies due to concerns over potential job losses. Participants also noted a general lack of awareness about the importance of energy efficiency, which impedes widespread implementation of these strategies.

Panel Reflections

The panel session brought together:

- **Dr. Abebe Beyene** (Policy Studies Institute, Ethiopia)
- **Dr. Kenneth Kigundu** (University of Chuka, Kenya)
- **Ms. Maureen Anino** (Ministry of Water and Environment, Uganda)
- **Mr. Fred Sabiti** (Ministry of Finance and Economic Planning, Rwanda)
- Ms. June Nyakahuma (Ministry of Finance, Planning and Economic Development, Uganda)

The panel, reflected on the day's discussions, focusing on the inclusivity of energy and transport transitions. One of the issues discussed was the importance of ensuring that subsidies to clean energy technologies, such as LPG-stoves or electric vehicles, are not regressive, i.e. mainly benefiting richer segments of society. The panel emphasized the importance of engaging local communities and marginalized groups in policymaking processes and ensuring equitable access to clean energy and transportation systems. Collaboration among all players is key, as well as long-term and integrated planning. There is no one-

size-fits-all and a combination of policies is needed in most cases. There are often great plans, but poor implementation, so good governance is necessary.

Dr. Laura Barasa, University of Nairobi, and Ms. Diana Masika from the Ministry of Energy and Petroleum, Kenya, summarized the discussions and paned reflections.

"The global history of energy transition largely excludes Africa," noted Laura Barasa and added, "Many of the problems we need to solve are cross-cutting, and more research is needed for a just transition."

"There is a great need for local and contextualized solutions," said Diana Masika

Actionable Recommendations

Key recommendations that emerged from the discussions include:

- Gender equity must be integrated into energy policies to ensure women are not disproportionately negatively affected by transitions.
- **Public-private partnerships** should be strengthened to finance low-carbon development in the energy, transport and manufacturing sectors.
- Capacity-building initiatives must focus on training local communities and vulnerable groups to take part in clean energy and transportation transitions.
- Regional cooperation can enhance crossborder knowledge-sharing on successful and less successful policies and scale up the adoption of energy-efficient technologies.

Conclusion

The EfD Policy Day highlighted the critical need for inclusive and equitable transitions in East Africa's energy, transport, and industry sectors. Moving forward, EfD will continue to engage with stakeholders and support policy development and implementation with research-based evidence for sustainable energy transitions across the region..



Reflections from participants

Mr. Joe Mwangi, State Department for Transport, Kenya



"I really appreciated meeting people from other countries and learning about how they are doing – it was a very informative experience. My key takeaway is the need to bring everyone onboard, the need for knowledge sharing, not working in silos, bring policymakers, researchers and stakeholders together for evidence-based policymaking"

Mr. Bernard Harerimana, Rwanda Development Board



The group discussions really gave me a lot of information about the ongoing work on energy efficiency. The collaboration between the public, the private sector, policy, and academia is key. Research needs to inform policy making and the academics also need to come to us and hear about the decisions we are making. If we leverage innovation, we can make sure our transport system is efficient.

Ms. Raavi Aggarwal, Indian Statistical Institute in Delhi and World Inequality Lab at Paris School of Economics. Keynote speaker at EfD Policy Day.



I found that there are many similarities in policies that we can import to India, for example in the area of renewable energy. We also discussed many important issues in climate finance. It was inspiring to hear how some EfD centers, like EfD Ethiopia, are very active in engaging with their governments. Researchers need to take more initiatives. We should form more relationships with the Indian government for our research to be more impactful.

Dr. Frank Adusah Poku, researcher EfD Ghana.



My main takeaway is the synergy that comes when policymakers and researchers collaborate. All countries in East Africa are doing their best to achieve their energy goals, to improve energy access, and clean cooking fuels, but still, there are limitations. Clean cooking is expensive, many rural areas don't have access to electricity, neither grid nor off-grid.

Ms. Mary Mahumi, Tanzania Forest Services



The best part was the interactive session with knowledge sharing on sustainable energy transition. That showed us how collaboration between academia and policy can help us achieve our goals.

About EfD

Environment for Development (EfD) is a global network of research centers specializing in environmental economics. We tackle urgent environmental and development issues worldwide. Our mission is to provide scholars with a dynamic research environment that fosters innovation and impactful solutions. EfD supports vibrant research centers across leading academic institutions, spanning 12 locations in the Global South. These centers not only run graduate academic programs but also engage in high-quality policy research and collaborate with key stakeholders and policymakers.

What sets EfD apart?

Our global reach and ability to combine teaching, training, research, and policy engagement. We connect scholars across borders, emphasizing South-South-North interaction.

In East Africa, we are implementing a model for structured knowledge transfer between policymakers and researchers through the Inclusive Green Economy in Practice program.

EfD collaborates in international research groups on critical topics such as sustainable energy transition, emissions pricing, sustainable consumption and production, marine resources, and natural capital. EfD's collaborative program Sustainable Energy Transitions Initiative (SETI) has contributed valuable expertise to the Inclusive Green Economy Program and the EfD Policy Day. By facilitating South-South-North collaboration, SETI advances knowledge sharing and offers evidence-based policy recommendations to support sustainable energy development.

The network is coordinated by the EfD Global Hub, based at the School of Business, Economics, and Law at the University of Gothenburg, Sweden. Since our inception in 2007, we've also forged partnerships with academic institutions in the Global North.

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