Local Climate Solutions with Poverty Reduction in NDCs. Experiences from East Africa

Experiences from Kenya

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East Africa Sustainable Energy Situation:

East Africa’s rapid economic expansion creates a daunting energy challenge, combined with growing population and rising expectations of improved resilience and sustainability.

Finding a sustainable way to meet growing energy needs is one of the core development challenges for the Region. East Africa and Africa as a whole is rich in renewable energy sources, including hydro, sun, wind and others, and the time is right for sound planning to ensure the right energy mix. Decisions made today will shape the continent’s energy sector for decades.

East Africa has a wide ranging and complex mix of energy issues, including lack of access to services and high electricity prices.
East Africa Sustainable Energy Situation:
The unsustainable biomass use for cooking, provides another challenge. The unsustainable use of biomass is not only a local problem – it contributes to national deforestation – one of the largest contributors to greenhouse gas (GHG) emissions in Africa.

For instance, in Kenya, with annual GHG emissions of about 70 million tons CO2-equivalents (MtCO2e), ¾ comes from deforestation, agriculture, and other land-use and land-use change. As much as ¼ of the total emissions can be mitigated by improved charcoal and wood fuel use.

Increasing access to sustainable energy services can contribute to achieving the SDGs and have a multiplier effect on health, education, transport, telecommunication, and safe water and sanitation services. This can contribute to poverty alleviation, providing modern improved energy services and income opportunities to the poor.
On the Positive:
Kenya has been ranked fifth globally in an annual Bloomberg index measuring investments and opportunities in clean energy, underlining the country’s position as the centre of renewable energy in Africa.

Kenya rose for the first time in the global top five & has been backed by the higher contribution of Solar, Wind and Geothermal capacity into the energy mix. The 3 now account for up to 65 percent of the country’s energy sources.

Kenya, Invested more than KSh140 billion in clean energy sources in 2018, ranked the best in Africa and together with Morocco made it to the top 10 list, beating many others from the developed world, including Europe where most of the clean energy investments are sourced.
Objectives of EASE-CA in Kenya

To increase access to sustainable Energy and other climate solutions to local communities in Kenya, Tanzania and Uganda with both women and men full and effective participation and leadership for improved livelihoods and reduction of poverty.

This will be realized by combining Civil Society Organization (CSO) activities on local, national and international levels in ways, where they reinforce each other.

The project primarily works towards SDGs1 (poverty), 5(gender), 7 (clean energy), 13 (climate action), 17 (partnerships).
Progress of Implementation

Influence Kenya’s NDCs Review by 2019-2020: This has given a unique opportunity for civil societies to influence the national climate policies to make them more pro-poor and targeting the most vulnerable, rural population.

After the revised NDCs are adopted in 2020, it is important to follow-up with promotion of a pro-poor implementation of them, so the plans are not only improved on paper, but also reach out to the target group of poor, rural people.
Progress of Implementation

- Strengthened CSO networks in Kenya, Tanzania, Uganda. They made a joint proposal and advocated for better NDCs, LEDs, SDG7/SE4All plans, using existing coalitions (in Kenya coordinated by Suswatch) and INFORSE Kenya.

- Developed and promoted strategies and scenarios for 100% renewable energy for Kenya and Tanzania.

- Strengthened regional network on climate and energy, including joint positions to UNFCCC and strengthened INFORSE.

- Developed joint catalogue on Pro-Poor local climate solutions, for mobile phones, on paper, web.
Local Climate Solutions with Poverty Reduction in NDCs. Experiences from East Africa & South Asia & Europe
EASE-CA project plans for 100% Renewable Energy

- Stakeholders Meeting on 100% Renewable Energy; Developed draft strategies and scenarios for 100% Renewable Energy on national level.

- Early 2020: The Launch of the strategies and scenarios will be done.

- 2020-2022: Promotion of the strategy and scenarios for implementation.

- Cooperation between Suswatch, INFORSE, interested CSOs and researchers, including students going on.
Scenario development for 100% Renewables, the work to do:

- Estimate renewable energy potential, mainly technical analysis

- Estimate future energy (service) demand through dialogue with stakeholders

- Energy efficiency, technical analysis and dialogues

- Energy access Analysis

- Technical analysis, energy balance (economic analysis)

- Use existing analysis as much as possible

- Cooperate as much as possible, including WWF, 100%RE Coalition (international), universities and other partners.
Recommendations at National Level

Limiting global warming to 1.5 - 2°C: 100% renewable energy until 2050, reduce all greenhouse gases to net zero also until 2050

The Sustainable Energy Path

- Increase end-use Energy Efficiency
- Limited growth in energy services
- Efficiently combined energy supply
- Renewable Energy

Intelligent & flexible energy systems
Solar Low-carbon and high-carbon development pathways

With its growing economy, Kenya stands at a crossroad between systems that use fossil fuels and low-carbon fuels.

While Kenya seeks to achieve its carbon-reduction goals with a low-carbon development pathway, the exploitation of indigenous fossil fuel resources (coal and oil) for power production and export is gradually growing.

The high-carbon development pathway poses a risk of concentrating the benefits of economic growth and industrial development in urban areas, with rural areas losing out.

Indeed, low-carbon energy may be more beneficial in the long run, but the ability of fossil fuels to meet short-term goals of rapid economic growth is often more attractive to governments, politicians and the industry itself.
Solar Low-carbon and high-carbon development pathways

First, the High upfront capital costs of renewables are often perceived as a barrier to wider uptake. While this may be the case for some renewables (solar, wind), these perceptions might not match reality, especially with local and global trends, such as decreasing costs of solar, fluctuating costs of fossil fuel imports, and the increasing competitiveness of wind. (Stockholm Environment Institute).

Renewables such as solar and wind are perceived to be less reliable than fossil fuels due to their intermittent nature, thus potentially contributing to grid instability. However, technical and operational innovations – such as increased storage, improved efficiency, more effective load management and “smart grids” – offer potential solutions, though the costs and suitability of certain innovations need to be considered if we are to offer pro-poor local Climate Solution.
Potential issue areas relating to energy development pathways

- **Low-carbon**
  - Intermittency
  - Short-term costs
  - Industry lobby
  - Limited financing mechanisms
  - Global climate commitments

- **High-carbon**
  - Lock-in
  - Long-term costs
  - Industry lobby
  - Established financing mechanisms

- **Centralized**
  - Economies of scale
  - Physical distribution network
  - Adequate supply in most cases
  - Standard business model

- **Decentralized**
  - Diffusion can be scaled up
  - Alternative distribution network
  - Limited supply in some cases
  - Tailored business models

- **Biomass**
  - Expensive to make ‘clean’
  - Locally available
  - Established markets & practices

- **Alternative cooking fuels**
  - Less smoke, fewer emissions
  - Hard to change behaviour
  - Not easy to regulate (charcoal)
  - May rely on imports (LPG)
Conclusions

- Solar and wind produces cheaper power than nuclear, coal and gas
- Energy efficiency is cheaper, when done together with renovations etc.
- Solar can provide local electricity, hot water and large-scale, affordable heating + steam
- Improves rural economy and national balance of payments
Challenges and Recommendations at National Level

Despite ample availability of renewable energy sources in Kenya and the Feed-in-Tariff (FiT) Policy in place, actual investments in the renewable energy remain relatively small.

One of the challenges in developing investments in this sector is a lack of clear, up-to-date information about how to obtain the various licenses and clearances required to construct and operate an energy project.

To encourage investment in the renewable energy sector, it is important to ensure that licensing procedures are efficient and that information regarding licensing is accessible and easy to understand.

The Renewable Energy Portal was created to improve the dissemination of regulatory information by collecting all license information in one place and displaying it in a simple, user-friendly format.
Opportunities

- Energy Savings, where it makes economic sense
- Renewable energy (solar, geothermal, wind) for power demand increase
- Renewable energy for industry and commerce including SMEs
- Gradually more electricity in transport (e-bikes, e-buses, e-cars etc.)
- Energy Access with local solutions, analysis will focus on cooking and electricity outside the grid.
Thank You for Listening

Asante Sana

Danke fürs Zuhören

Tak fordı du lyttede

Merci de votre attention

sunane ke lie dhanyavaad

Sunidinu bha‘ēkāēmā dhan‘yavāda

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