

**Local Climate Solutions towards 100% Renewables - Gender Matters**

# 100% Renewables & Local Solutions in Kenya & East Africa

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# About Sustainable Environmental Development Watch (Suswatch Kenya)

- ❑ A member Organization formed in 2002 as part of the Global Sustainability Network.
- ❑ Registered Officially in 2011
- ❑ Composed of CSO's engaged in varied thematic issues contributing towards Sustainable Development Agenda
- ❑ Operating in East Africa and international level, influencing policy formulations on climate change, Renewable Energy etc and Capacity building of community groups on the above.



- ❑ Member and national coordinator of International Network for Sustainable Energy - INFORSE

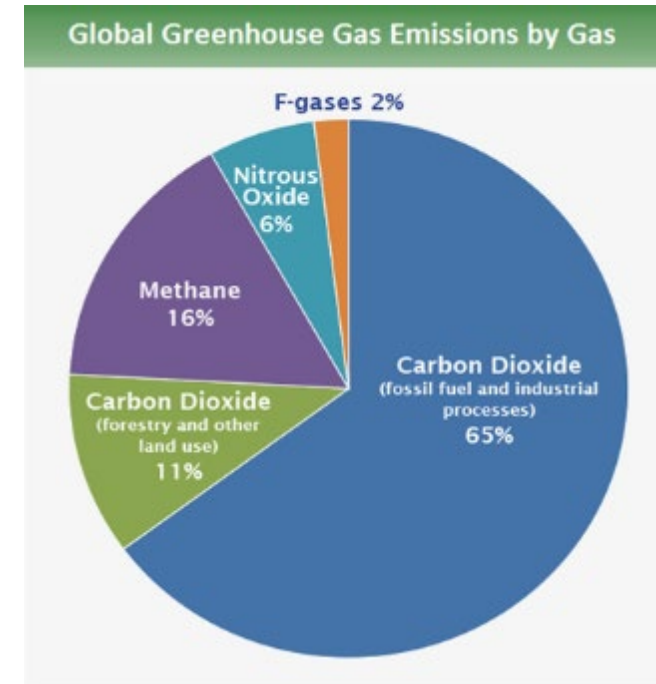
# Kenya's Energy Sector Highlights

## Background

- Kenya initially aimed to achieve a 100 % renewable energy transition by 2022 but failed.
- Kenya's renewable energy extraction is still low due to poor policies implementation.
- Introduction of incentives increased the solar home systems in rural homes. (Kenya Off-Grid Solar Access Project)
- Geothermal in Kenya leads in the energy matrix by about 40 %.
- Solar, hydro and wind energies influenced by seasons.

# Kenya's pathway to 100% Renewables

- Energy is the lifeblood of all societies. But its production from fossil fuels produces carbon dioxide emissions that are released into the atmosphere on a grand scale.
- Energy sector accounts for more than 70% of total global greenhouse gas emissions, which are driving climate change worldwide. Reducing Carbon Dioxide emissions from the energy sector has a direct and positive impact on climate protection.



# Cont..

- ❑ Provision of clean and sustainable energy is essential for the realization of Kenya's Vision 2030 is considered as one of the infrastructure enablers of the socio-economic pillar of the Vision.
- ❑ To meet the growing energy needs of its citizens, the Kenyan government actively pursues new technologies to expand and upgrade the networks as well as promote the transition to a renewable based energy system.



Solar Cooker



Flexi biogas

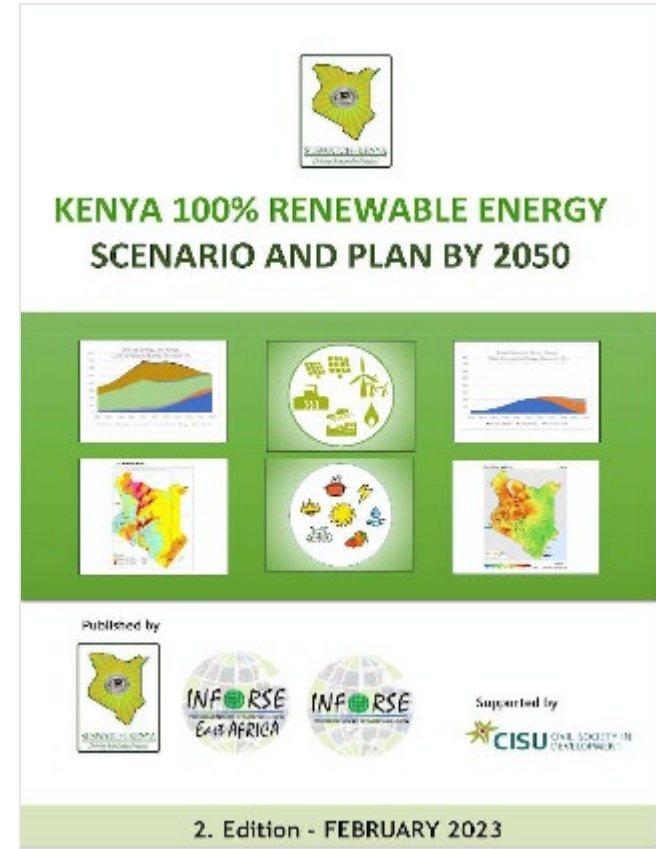
# Milestones

## Cleaner cooking






- ❑ Kenya has an ambitious target of achieving 100% access to modern cooking services by 2028 including efficient cook stoves for wood and charcoal, household biogas, LPG stoves, and others.

## Renewables

- ❑ Renewable energy currently accounts for 70% of the installed power capacity including large hydro-power. It accounts for more than 70% of the power generation, but production varies from year to year with hydropower production that is low in dry years (Ministry of energy 2019)
- ❑ Kenya also has an ambitious target of achieving 100% RE by 2030 and this should be emulated by other countries in East Africa

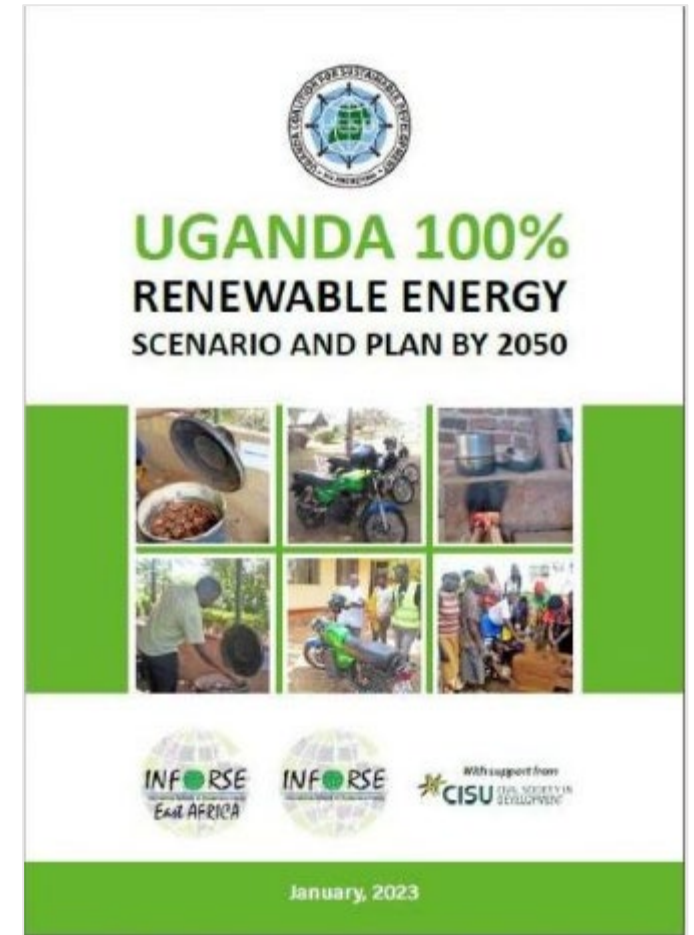


# Renewable Energy Existing Capacity, Potential, Energy Use Projections in Kenya

Energy Type	Existing capacity (2019)	Capacity 2030	Capacity 2050
 <b>Solar</b>	400 MW PV incl. small +2500 m <sup>2</sup> solar heaters	3,330 MW PV incl. small, 2 mill. m <sup>2</sup> solar heaters	17,330 MW PV incl. small, 2 mill. m <sup>2</sup> solar heaters
 <b>Biogas /biomass</b>	30,000 bio digesters for cooking 4.7 mill improved stoves	250,000 bio digesters for cooking, 12.6 mill. improved cookstoves	500,000 bio digesters for cooking, 15.6 mill. improved cookstoves*
 <b>Geothermal Energy</b>	801 MW	2,931 MW	5,566 MW
 <b>Hydro power</b>	+823 MW	1,123 MW	1,123 MW
 <b>Wind power</b>	+350 MW	1,500 MW	9,000 MW

# Recommendations

- ❑ Investing in modern energy solutions with energy efficiency and cleaner, renewable energy should be prioritized in Kenya and East Africa
- ❑ Diversifying the energy mix into different renewables to reduce over-reliance on finite resources.
- ❑ More budget allocations to fully finance the exploitation of clean and renewable energy sources that are locally available like geothermal, wind, solar and biogas.
- ❑ Managing the cost of energy through optimal combination of energy efficiency and affordable renewable energy should be a priority. Expensive energy solutions as nuclear power should be avoided.





## Cont ...

- ❑ Make biomass use for energy sustainable with a combination of efficient biomass use, efficient charcoal production, increased supply with plantations etc.
- ❑ Make **transport energy** sustainable with use of electric transport, based on renewable electricity for instance; small electric vehicles like scooters, e-bikes, 3-wheel taxis on electricity.
- ❑ **Raising public awareness** of more efficient energy use, including energy efficiency measures, local use of renewable energy, and new technology developments.

## Cont.....

- ❑ **Involve local communities and county governments** along the entire energy chain as well as transparent and accountable management of resources for the mutual benefit of all to reduce tensions and enhance ownership of projects.
- ❑ **Mainstream gender** in the implementation of energy projects and programs. There is need to implement the gender and energy policy by the ministry of energy.
- ❑ **Increase Fiscal investment** in greening of the economy to reduce the impact of climate change and environmental degradation.



# Thank you

## More information:



# NOBERT NYANDIRE - SUSWATCH KENYA

Email/website: [www.suswatchkenya.org](http://www.suswatchkenya.org) [www.Suswatchkenya.org/ease](http://www.Suswatchkenya.org/ease)

EASE & CA Project: [www.inforse.org/africa/EASE.htm](http://www.inforse.org/africa/EASE.htm)

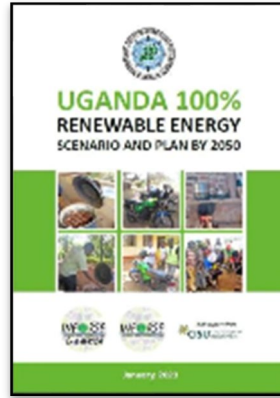
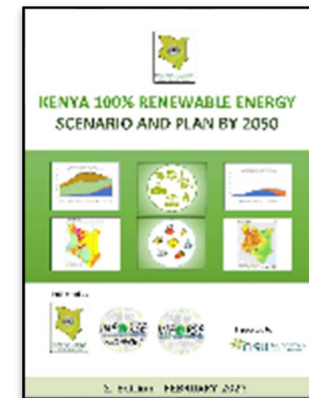
Online Catalogue: [www.localsolutions.inforse.org](http://www.localsolutions.inforse.org)

100% Renewables Scenario and Plan in Kenya:

[www.suswatchkenya.org/100-renewable-energy-plan-for-kenya-by-2050/](http://www.suswatchkenya.org/100-renewable-energy-plan-for-kenya-by-2050/)

100 % Renewable Scenarios & Plans in Africa - Kenya & Uganda:

<https://www.inforse.org/africa/Vision2050>



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