UNFCCC SB58, SIDE EVENT: 8/6 2023 16:45-18.00
Room: Kaminzimmer, Bonn, Germany

100 % Renewables, Local Climate Solutions in East Africa, South Asia

Welcome by organisers: SusWatch Kenya, INSEDA, Nordic Folkecenter for Renewable Energy (NFRE). Moderator: Judit Szoleczky, INFORSE

Global Transition to Renewable Energy

Gunnar Boye Olesen, INFORSE, NFRE, SE, Denmark

East Africa:

Promoting Local Solutions as Important Climate and Development Solutions in East Africa – Online Catalogue

Mary Swai, TaTEDO, INFORSE East Africa, Tanzania

Transition of Kenya to 100% Renewable Energy with Focus on Local solutions. Key Messages

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Transition to 100 % Renewable Energy in Uganda with Local Solutions, Sustainable Biomass

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Dialogue, Conclusion

Thanks to CISU CIVIL SOCIETY IN DEVELOPMENT

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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.

East African Civil Society for Sustainable Energy & Climate Action (EASE-CA)

Opportunity

- One of the sectors affected and contributing towards climate change is energy.
- The use of unsustainable energy sources contributes a great deal towards the global GHG emissions which is the main contributor towards the climate change phenomenon.
- Unfortunately, in East Africa, the main energy sources are unsustainable constituting biomass and fossil fuel use. There was therefore a need to commence a dialogue on transitioning to renewable and sustainable energy in line with **SDG 7 and SDG 13.**

East African Civil Society on Energy and Climate Action (EASE-CA)

Milestones

- The **EASE-CA** project managed to increase access to sustainable energy and other climate solutions for local communities in Kenya, Tanzania and Uganda including both women's and men's full and effective participation in leadership for improved livelihoods and reduction of poverty.

- This was achieved through CSO dialogues on transitioning to 100% renewable energy. Mapping and dissemination of local solutions on renewable energy **and other climate, Development of 100 % renewable energy scenario for Kenya by 2050**

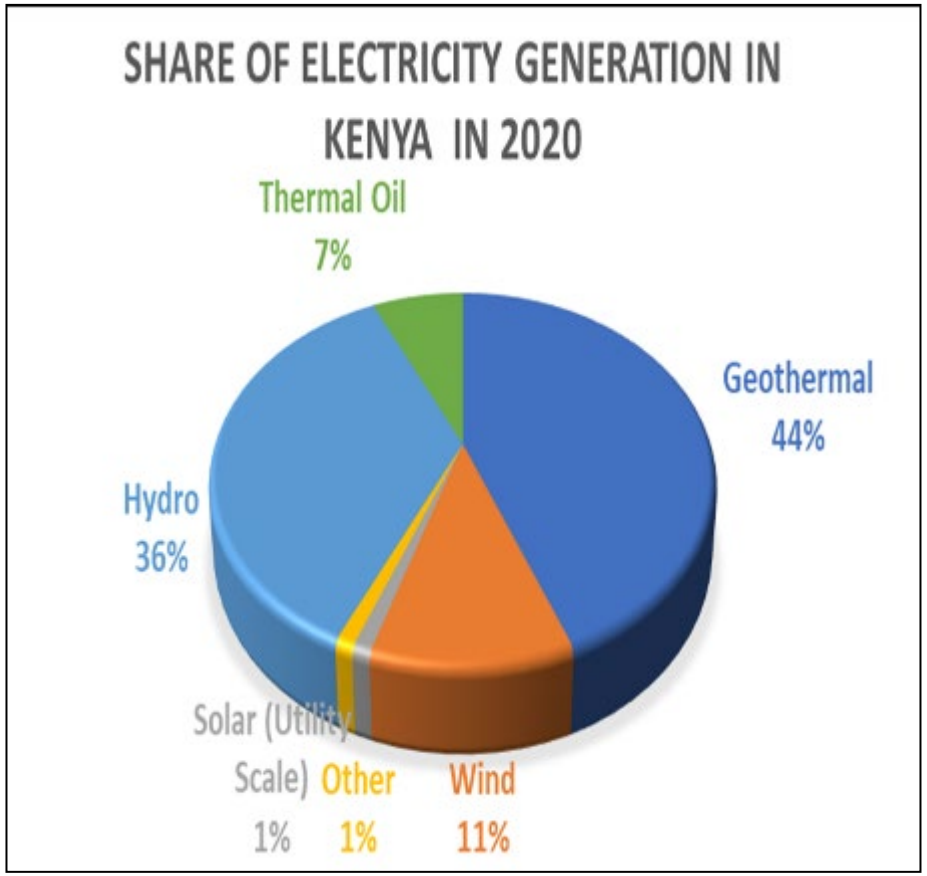
CISU CIVIL SOCIETY IN DEVELOPMENT

Why Renewable Energy in Kenya?

- It will create new jobs
- Boost economic growth
- Harvest social and health benefits
- Mitigate impacts of climate change.
- Decrease Energy Costs.

RE Resources and Potential Available in Kenya

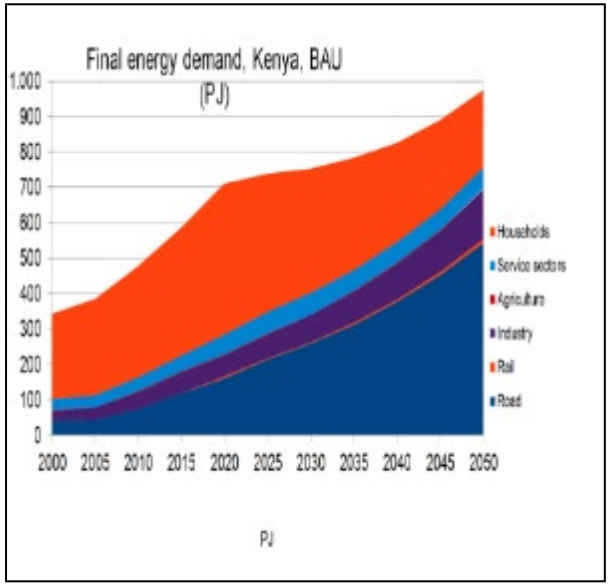
Renewables Provided 92.3% Of Kenya's Electricity Generation in 2020! (KNBS)

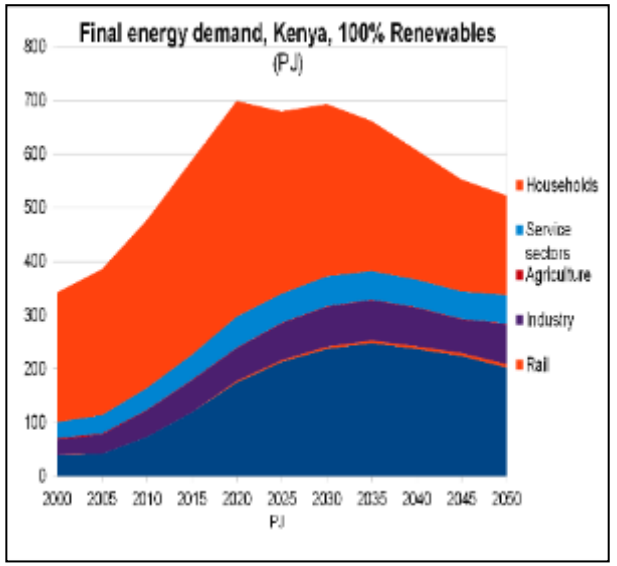


- Geothermal led the way at 44%, followed by hydro at 36%. Wind was at 11%, then thermal oil at 7%, followed by some utility-scale solar and other sources at 1% each.
- Kenya's Great Rift Valley has an estimated geothermal potential of 10,000 MW.
- This dependable clean energy potential puts Kenya in a great position to get to 100% from renewables very quickly. As the economy grows, electricity from geothermal can be a key anchor.

Kenya's Demand for Energy

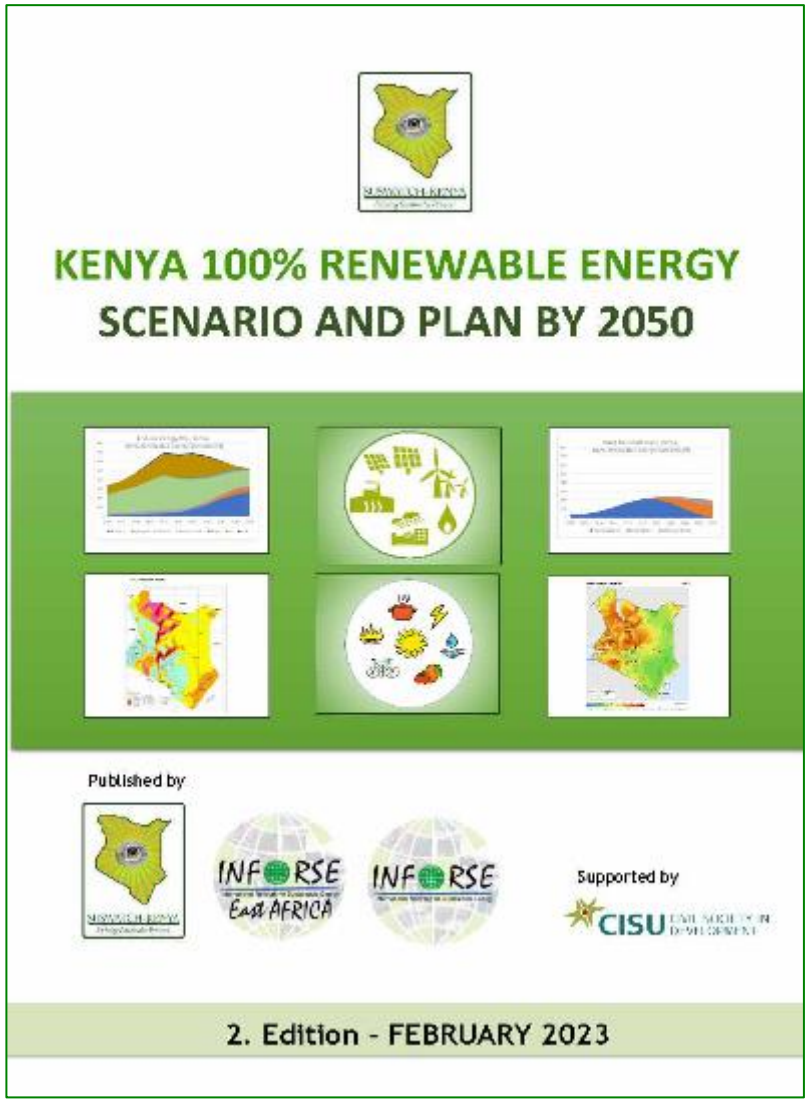
- Population grows, from 48 million (2019), to (maybe) 84 mill. in 2050
- GDP continue to grow, 5.7%/year in average, GDP 5 times bigger in 2050.
- Demand for energy services will grow with population and GDP.
- Increasing energy efficiency will limit growth in energy demand for cooking, transport, light, industry etc.; but without new actions, energy demand will still grow.





Proposed 100% Renewable Energy Development for Kenya

- Efficient cooking
- Change transport gradually to electricity, hydrogen and renewable fuels
- Make charcoal production much more efficient, from <15% today to 33%
- Expand windpower to 9,000 MW
- Expand solar power to 17,000 MW
- Expand geothermal power to 5,600 MW
- Expand electric interconnectors to 3,000 MW capacity
- Biomass power plants to balance demand and supply



Local Solutions in GST?

- From the Submitted NDCs, **Local Energy Solutions** are just partly reflected yet they are really helping to secure sustainable energy for development and poverty reduction.

- The GST should therefore include reporting on the extent the local solutions are used in each country, how they are included in climate plans and NDCs, and their potential to contribute to further GHG emissions reduction, resilience building and adaptation.

- From the UNEP's NDC gap Analysis report, the current NDCs are likely to fall short of meeting the Paris Agreement goals

Why Local Solutions in GST?

- The **GST** should be used to identify additional actions that can increase ambition. **Here local solutions** have a huge potential.
- Three basic issues have to be taken into account, namely:
  - **Recognition of the local solutions** to be part of the NDCs;
  - Continuous **learning from multi-actor actions** on the ground to mitigate and to adapt to climate change; and
  - **Scale up provision and access to climate finance** (mitigation finance as well as adaptation finance) for the actors that are implementing the local solutions including CSOs, Communities, Women, Youths and other groups so that they are able to implement local solutions.

Thank you

More information:
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More info Contact: Suswatch Kenya
www.Suswatchkenya.org/ease
EASE & CA Project: inforse.org/africa/EASE.htm
Online Catalogue: www.localsolutions.inforse.org
100% Renewables Kenya: www.suswatchkenya.org/100-renewable-energy-plan-for-kenya-by-2050/
Proceedings: http://www.inforse.org/cop27.php


POLICY BRIEF: TOWARDS THE REALIZATION OF KENYA'S 100% RENEWABLE ENERGY BY 2050
MARCH 2023

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SB58 2023

Thurs., 8 June 2023 - 16.45 - 18.00
Room: Kaminzimmer

100% Renewables, Local Climate Solutions in East Africa, South Asia

The Uganda 100% Renewable Energy in Plan by 2050

By Kimbowa Richard, Uganda Coalition for Sustainable Development

Email: rkimbowa@ugandacoalition.or.ug

Project supported by CISU CIVIL SOCIETY IN DEVELOPMENT

Uganda Coalition for Sustainable Development (UCSD) is a **network of more than 40 NGOs** dedicated to coordinate advocacy and lobby work around issues and commitments made by world governments towards sustainable development since 2004

Mission: Contribute to sustainable development through follow up of the Johannesburg summit outcomes and subsequent global declarations in Uganda

Currently, **UCSD has been a Partner in NGO Cooperation Project (July 2019 – March 2023)**:

EASE-CA Project - East African Civil Society for Sustainable Energy & Climate Action in East Africa that sought to promote sustainable energy and climate solutions, supported by CISU Denmark.

Project partners

- ❑ Strengthen CSO networks in Kenya, Tanzania, Uganda to make joint proposals and advocate for better NDCs, LEDS, SDG7/SE4All plans, using existing coalitions (in Kenya coordinated by Suswatch) and INFORSE
- ❑ **Develop and promote strategies and scenarios for 100% renewable energy for Kenya and Uganda**
- ❑ Strengthen regional networking on climate and energy, including joint positions to UNFCCC and strengthen INFORSE
- ❑ Present joint positions at UNFCCC COP's and other places internationally
- ❑ Develop joint catalogue on local climate solutions, for mobile phones, on paper, web: http://localsolutions.inforse.org/

Summary for 100% Renewable Energy Plan for Uganda

Plan gives an overview of the **Uganda's situation regarding energy supply and demand**, and presents a **scenario on how Uganda can move into a 100% renewable energy economy by 2050**; and, at the same time move **from a low income country into a middle income** country - as well as **reduce biomass use for energy to sustainable levels**

Uganda has vast potentials for renewable energy, which give a good basis for realizing a development as described in the 100% renewable energy scenario

Opportunities for East Africa for 100% Renewables

- ✓ 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.)

Uganda's Demand for Energy – Important Assumptions

Population grows, from 45M today, to an expected 100M by 2050

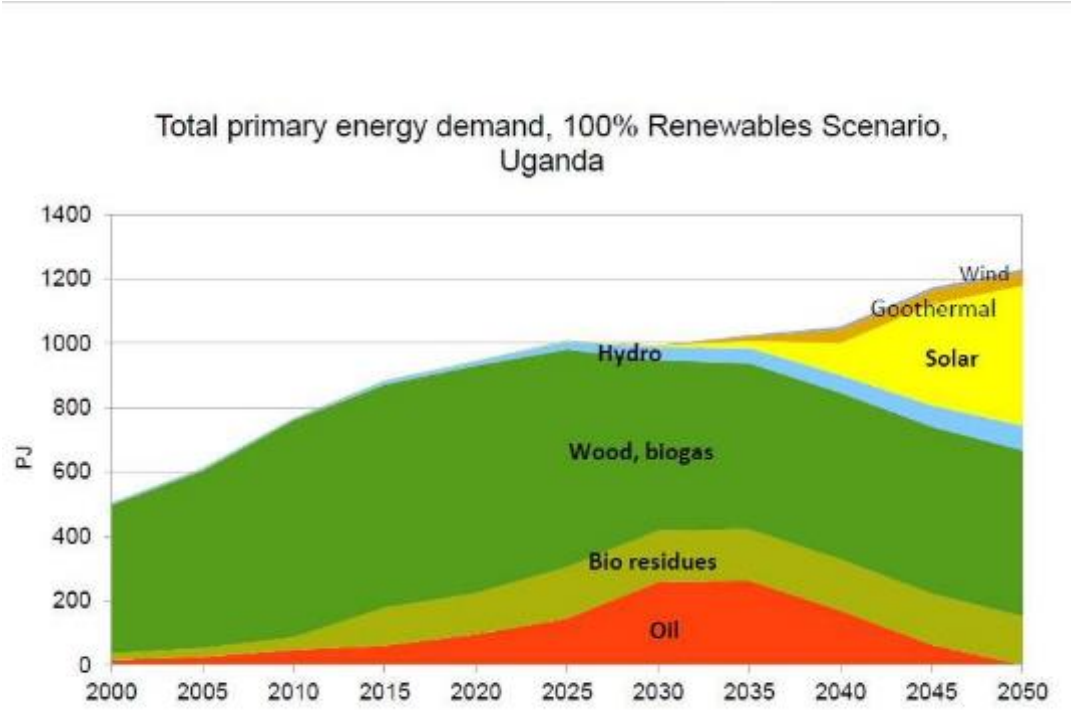
GDP continue to grow, 5%/year is expected. Then GDP will be 4.3 times bigger in 2050 than in 2020

Demand for cooking, transport, light, industry etc. will **grow in proportion with population and GDP**. With the governments ambitious plan of universal electricity access by 2030, household electricity demand will grow fast 2020 - 2030

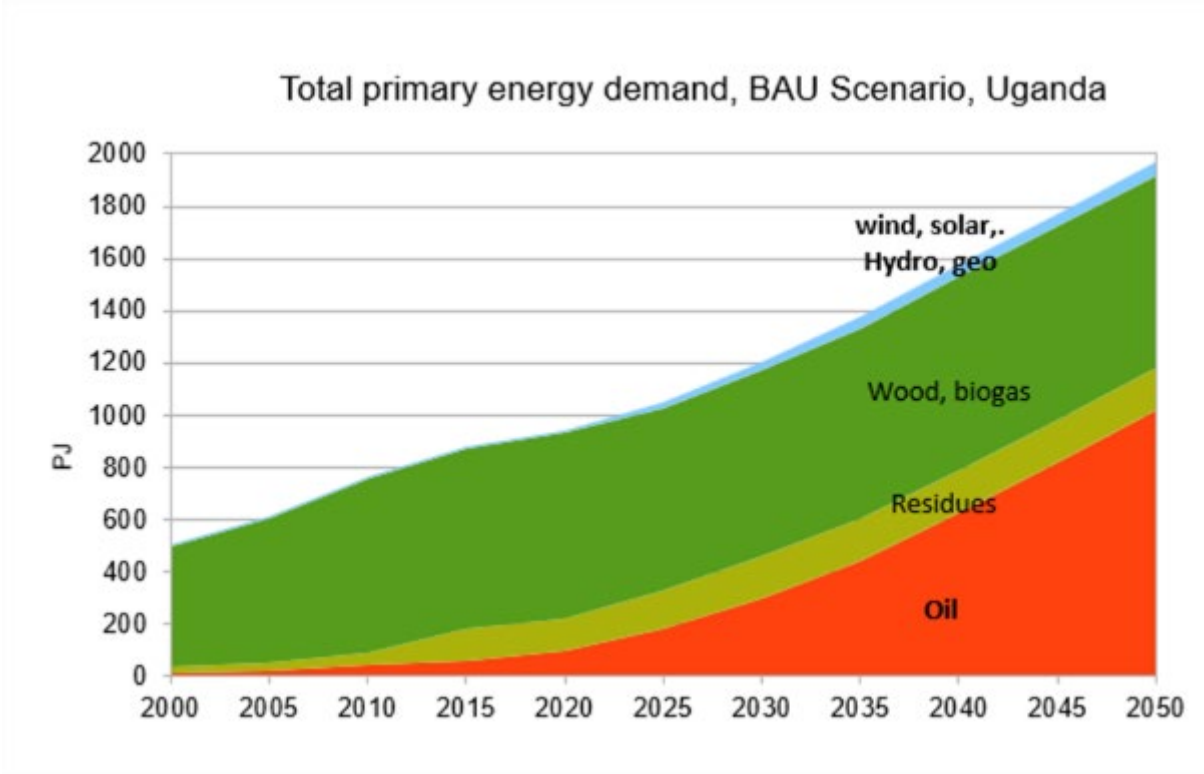
Increasing energy efficiency will limit growth in energy demand for cooking, transport, light, industry etc.; but energy demand will still grow

With new, efficient technology, large demands for fuel can be replaced with much smaller demands for electricity: smart cooking, electric vehicles etc.

Total Primary Demand



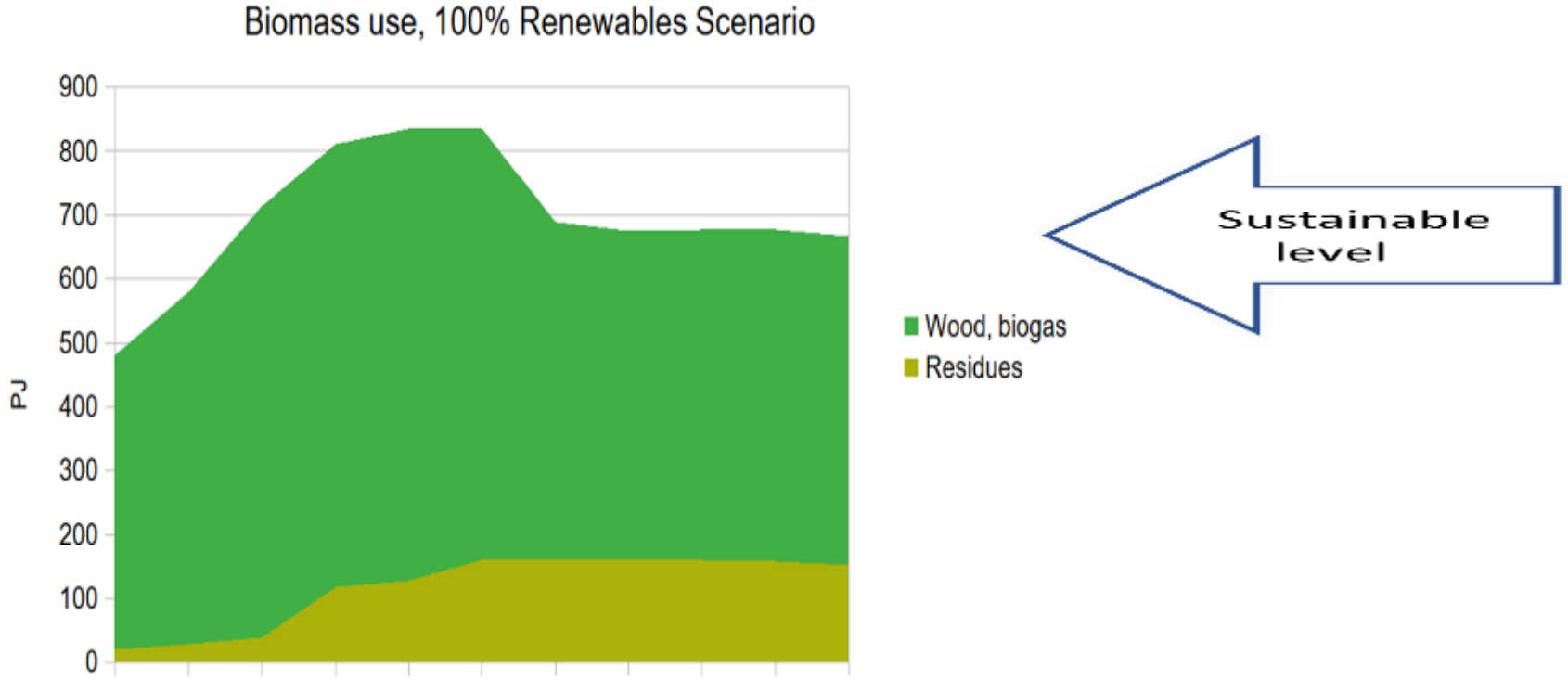
100 % RE Scenario: For geothermal electricity production only is included not waste heat



Business As Usual Scenario

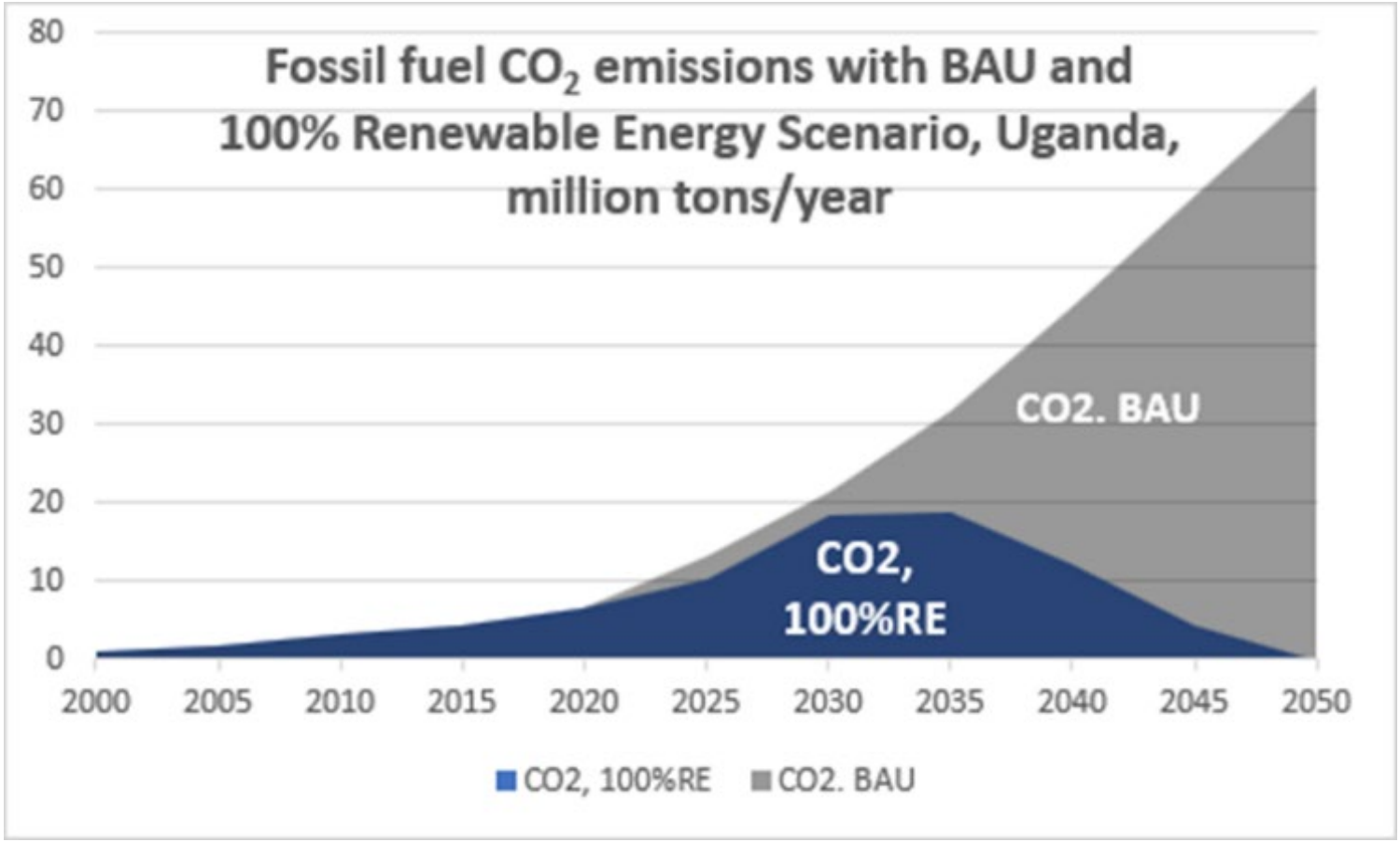
Biomass Sustainability

Uganda is using more wood than its sustainable level, leading to deforestation (BAU). In the 100% renewable energy scenario, this demand is reduced to the sustainable level



CO2 Emissions from Energy – A better Green Dev't Path

CO2 emissions from fossil fuels are small today, but growing. In the BAU scenario they will continue to grow, while in the 100% renewable energy scenario, they will gradually be reduced until 2050.



Net emissions from unsustainable biomass use is much higher than emissions from fossil fuels. In the 100% renewable energy scenario, the net biomass emissions will be brought to zero by 2030 by **tree planting, and the efficient cooking and heating technologies** (new, efficient technology,

Thank You

More info:

Uganda Coalition for Sustainable Development: www.ugandacoalition.or.ug

EASECA Catalogue: www.localsolutions.inforse.org

INFORSE 100% RE in Africa: inforse.org/africa/Vision2050.htm

www.inforse.org/SB58.php