SB56 2022

11 June, 2022 - 11.30 - 13.00
Room: Berlin

Local Climate Sustainable Energy Solutions in Global Stock Take, 100% RE, Sufficiency: East Africa, South Asia, Europe

Welcome by the organisers INFORSE – SusWatch Kenya, - NFRE – SE - **Intro & Moderator: Judit Szoleczky, INFORSE**

Local Solutions in East Africa / Catalogue:

Mary Swai, TaTEDO, INFORSE-East Africa, Tanzania

100 % Renewables Scenarios - Kenya

Nobert Nyandire SusWatch Kenya

Local Solutions in South Asia: India, Nepal, Bangladesh, Sri Lanka. Eco-Village Development Catalogue & Policy Brief

Sanjiv Nathan, INSEDA, INFORSE-South Asia

Sufficiency - overlooked climate action in Global North

Gunnar Boye Olesen, INFORSE-Europe & SE

INFORSE-East Africa Proposals for getting local Solutions into GST

Richard Kimbowa, UCSD, INFORSE-East Africa

Comments

Stephen Nzioka, Ministry of Energy, Kenya

Dialogue on how to integrate local solutions in GST to strengthen climate action - Questions & Answers

More: https://inforse.org/SB56.php

Thanks to support: CISU CIVIL SOCIETY IN DEVELOPMENT

SB56 2022

11 June, 2022 - 11.30 - 13.00
Room: Berlin

Local Climate Sustainable Energy Solutions in Global Stock Take, 100% RE, Sufficiency: East Africa, South Asia, Europe

East Africa Local Climate and Sustainable Energy Solutions Catalogue

Mary Swai,

Manager-Bioenergy and Climate Change

Tanzania Traditional Energy Development Organization (TaTEDO)

About TaTEDO

- TaTEDO (Centre for Sustainable Energy services) is a NGO with more than 30 years of experience committed to facilitating access to sustainable energy services in Tanzania.
- TaTEDO is the Regional Coordinator of INFORSE East Africa network.
- Overall objective - improve peoples' livelihoods by increasing their access to SE services and technologies.
- Some of the technologies promoted by TaTEDO include RE mini-grids, improved wood-fuelled cook stoves, solar PV systems, solar drying technologies, sustainable charcoal value chain, briquettes from carbonized bio-waste, efficient electric cooking appliances (electric pressure cooker), and e-mobility.
- Activities - implementation of sustainable energy projects, dissemination of energy awareness information & behavioral change campaigns , lobbying and advocacy for supportive energy and climate change policies, supports development of SE enterprises, provides energy-related consultancy services, conducts energy-related applied research, and develops networking and partnerships.

Biomass energy production & use in Sub-Saharan & EA

- More people without access to clean cooking solutions are in Sub-Saharan Africa (SE4ALL, 2021).
- Biomass contributes about 90% of the total energy consumed in most of the EA countries.
- Most of biomass is unsustainably produced and used in households, institutions, & commercial entities to meet basic energy needs for cooking and water heating.
- Unsustainable biomass production and use is commonly attributed to forest and land degradation, GHG emissions, and negative human health effects.
- Deforestation in Tanzania: 30% contributed by charcoal making
- Biomass production and use is estimated to contribute 2-7% to global GHG emissions.
- Sub-Saharan Africa is estimated to account for about a third of these emissions (FAO, 2017).

Biomass Energy Production & use in EA

- Considering increasing demand & continued unsustainable biomass production and use can be expected to exacerbate CC.
- TZ, charcoal demand to double from 2.3 in 2012 to 4.6 mil ton by 2030 if no intervention.
- In EA, fuel stacking is a common practices, even as HH transition to alternative fuels, biomass remains part of energy mix
- Traditional BEK with efficiency of 8-15% is commonest type of kiln used in charcoal production in EA.
- To produce 1kg of charcoal using BEK requires 7kg of wood.
- Traditional stoves used have low efficiency of between 10 to 15 %.
- Intervention to address challenges in this sector is key as it also provides opportunity to enhance climate action




Solutions to address inefficient use of biomass energy

- SeTa stove has thermal efficiency of 54.8 %,
- Has ability to reduce fuel consumption by around (75%)
- The efficiency also implies:-
  - Reduction in institution's cooking-energy budgets,
  - Time saving
  - Reduced woodfuel – reduced deforestation
- Reduced IAP - Healthy & Clean – 90% Less smoke & soot, portable
- Available at 25L, 50L, 100L and 200L,

Improved Charcoal Production Kilns

- IBEK requires only 4.5 kg of wood per 1 kg of charcoal

Basic Earthmound Kiln

- Improved BEK has efficiency above 25% and carbonization + cooling is 4 days, and charcoal produced has relatively high calorific value.

Improved Basic Earthmound Kiln

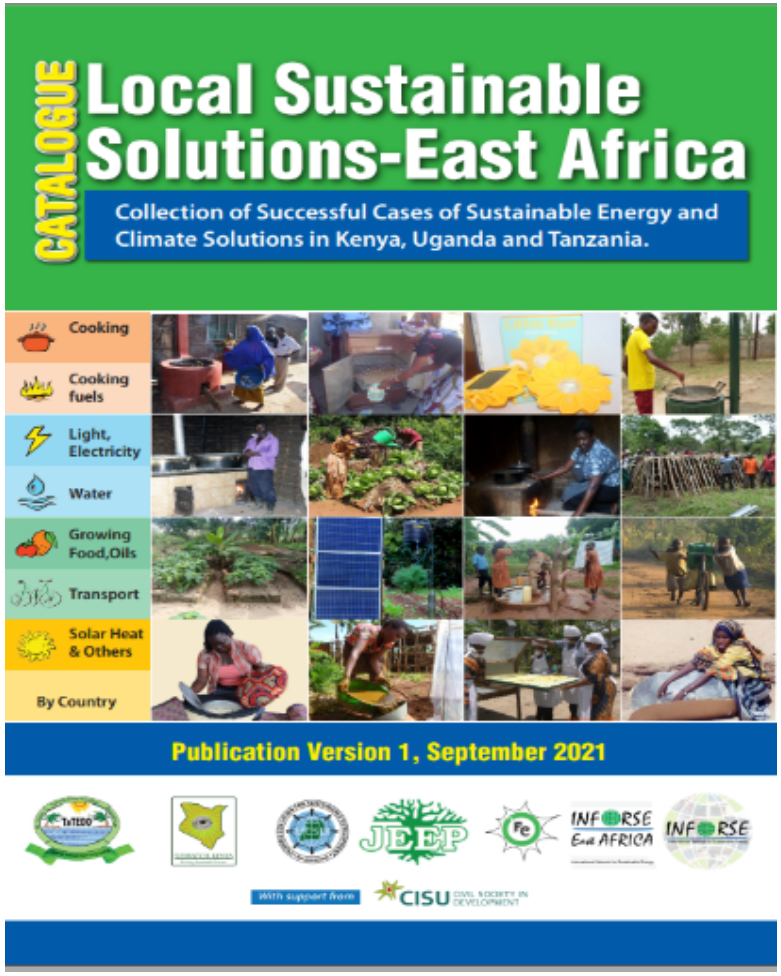
Use alternative energy

- Efficient Pressure Cooker (EPC) uses 50 to 75 % less energy than other electric cooking appliances since it leverages the pressure powers of steam.
- Compared to other cooking it is 2-10 times faster.
- It is convenient – with timer set.
- In Tanzania, cooking using the EPC is about 7 times cheaper than kerosene, 10 times cheaper than LPG, and 13 times cheaper than charcoal for boiling heavy foods.
- Reduce emissions and personal exposure to harmful pollutants, thus lowering the burden of disease.
- Awareness & behaviral change campaigns are critically important to raise demand for the EPCs.

Catalogue for Local Sustainable Solutions in East Africa

- Document more than 60+ practical climate local solutions that solve energy, water, food insecurity challenges faced by local communities.

- Catalogue is available online
www.localsolutions.inforse.org
pdf download, offline and in print



INFORSE East AFRICA

CATALOGUE: LOCAL SUSTAINABLE SOLUTIONS IN EAST AFRICA

WWW.LOCALSOLUTIONS.INFORSE.ORG

With support from CISU

SB56

UNFCCC SB56 Side Event - Bonn, Germany - **Local Climate Sustainable Energy Solutions in Global Stock Take, 100% RE, Sufficiency: East Africa, South Asia, Europe** // INFORSE - SUSWATCH - NFRE - SE 11/6 2022, 11:30-13.00 Room: Berlin

Cooking

Cooking fuels

Light, Electricity

Water

Growing Food,Oils

Transport

Solar Heat & Others

By Country

Catalogue for Local Sustainable Solutions in East Africa www.localsolutions.inforse.org

Cooking

- Improved cookstoves for firewood
- Improved cookstoves for charcoal
- Cookstove Biogas
- Solar cookers, hay boxes, e-cookers

Light, Electricity

- Light solar lanterns
- Solar home system
- Renewable energy minigrids and m

Growing food, oils

- Kitchen gardening
- Organic vegetables for market
- Agro-foresty, & products from trees

Transport

- Bicycles

Cooking fuels

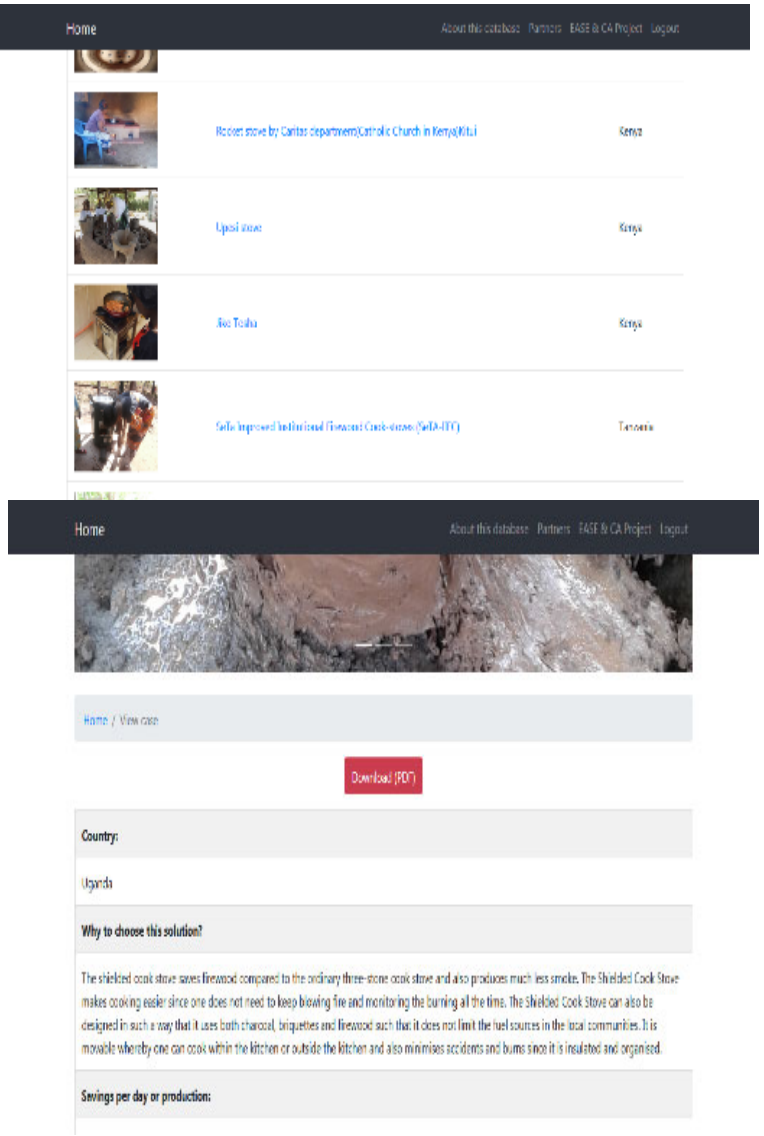
- Charcoal making
- Brickets of charcoal, sawdust and others
- Fuelwood planting

Water

- Rain-water harvesting and use
- Improved wells
- Water savings

Solar heat & others

- Solar drying
- Solar water heating



Catalogue for Local Sustainable Solutions in East Africa

Catalogue details

- Why to choose the solution
- Benefits
- Costs & Lifetime
- Maintenance needs
- Barriers, Limitations
- Why is it successful
- Contribution to climate effect
- Financing & business models
- Link to short video on construction and use
- More Info & Sources

www.localsolutions.inforse.org

Conclusion & Recommendations

- Local solutions have potential to contribute to reduce GHG emissions and therefore offer opportunities to strengthen climate action if included in NDCs, implemented & progress monitored.
- We propose that in the GST, it is reported to which extent these local solutions are used in a country focusing on relevance, how they are included in climate plans and NDCs, and which potential they have for further reductions of emissions in particular countries.

Thank you

More info: www.tatedo.or.tz

Catalogue of Local Sustainable Solutions: www.localsolutions.inforse.org

Proceedings: www.inforse.org/SB56.php