Focus on Local Sustainable Energy and Climate Solutions in the Global Stocktake

INFORSE Submission to UNFCCC Global Stocktake, second round of submissions, august 3 2022.

Summary

International Network for Sustainable Energy (INFORSE), as a global network of civil society organisations would like to submit that based on our documented experiences, local climate and energy solutions[1] are important in reaching climate targets while also helping to secure sustainable energy for development and poverty reduction, but this is only partially reflected in the current NDCs. The GST should therefore provide provision for reporting on the extent to which 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 in each country.

Framework for Action – Our Analysis

Given that the **current NDCs are likely to fall short of meeting the Paris Agreement goals, the 1.5degC temperature goal as well as the finance goal**, the GST should be used **to identify additional actions that can increase ambition and close the glaring gaps in climate action. Local sustainable energy and climate solutions have huge potential in this while also having many co-benefits. They are relevant for many of the aspects of GST, as illustrated in the annex A of this document on local solutions in relation to the themes of the UNFCCC SB56's Global Stocktake World Café.**

Decentralised small-scale renewable energy technologies are climate solutions that have many co-benefits as they can provide energy that is affordable to the poor, as well as a new source of employment and of enterprise creation. They are, therefore, likely appealing for engaging the local communities to participate and take an active role in their development. Annex B of this document provides an overview of the local solutions that INFORSE members work on in different world regions as well as in annex C on policy analysis from INFORSE South Asia and annex D policy analysis from INFORSE East Africa.

It is **important to regularly listen and continuously learn from the current heightened global interest and emerging innovations on climate change adaptation and mitigation by civil society including young people, women, representatives of indigenous people and other local communities**. These lessons shall iteratively inform the course of action to raise the NDCs ambition, while mobilising stakeholders to take both practical and strategic (policy) actions. In doing so this will also contribute to illuminating the climate finance gaps right from the local to the national levels.

We find that **ambitious NDCs with both conditional unconditional commitments that increasingly take up local, sustainable, pro-poor, and gender responsive climate and energy solutions to improve livelihoods, are key to averting the current climate crises & disasters**. INFORSE has noted that those local solutions to reduce GHG emissions especially from the current overuse of biomass are missing in many NDCs.

For this to work well, **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 (including local solutions) on 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.

[1] See Catalogue of Local Sustainable Solutions-East Africa (Collection of successful cases of sustainable energy and climate solutions in Kenya, Uganda and Tanzania (November 2021): http://localsolutions.inforse.org/

This calls for **provision and scaling up access to climate finance for CSOs, Communities, Women, Youths and other groups so that they are able to implement local solutions (sustainable energy and climate solutions; nature-based solutions). For the communities at the frontline of climate change, finance for adaptation is in particular needed.**

Proposals

Based in the above analysis and experiences from our members,

- **Local solutions alongside large scale ones should be promoted in the NDCs and climate plans** to reduce emissions beyond what is possible with only the large-scale solutions that are dominant in most NDCs today.

- **To facilitate this, the GST should provide for reporting on the extent to which 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 in each country.

Read more about INFORSE and our proposals for climate action at https://inforse.org/

Annexes

A Local solutions in relation to the UNFCCC SB56's Global Stocktake World Café
B An overview of the local solutions that INFORSE members work on in different world regions
C Policy analysis from INFORSE South Asia
D Specific problems in East Africa.

Annex A Local solutions in relation to the UNFCCC SB56's Global Stocktake World Café

At the first GST World café held in Bonn (June 2022), our analysis showed that local solutions are relevant in several thematic discussion groups at the World Café. We estimate that it was the case for more than 50 per cent of the groups, as illustrated here:

1. Energy Transition: All countries should include local, appropriate, and affordable solutions

2. Reduce Global Emission with near-term mitigation actions: This must include local solutions that are fast to implement

6. National and subnational planning processes: This should start from the known, including learning from successes with local solutions

8. Support for adaptation: 'frontline' communities and vulnerable ecosystems need appropriate, and affordable solutions, which are often local solutions in sustainable energy as well as others

9. Financial flows: increase financial flows and also increase share of flows to support local solutions (in adaptation, mitigation, cap. bldg., etc.)

10. Public finance: increase public climate finance and also the share for local solutions. It is key to reach out to the vulnerable that benefit from local solutions, also because indebted countries may not be able to take up more loans with conditionalities

11. Technology development and transfer: start with what we know, works, including south-south transfer of local solutions

12. Capacity building efforts: sustainability hinges on starting with what works, iteratively for improvement / replicability

Annex B An overview of the local solutions that INFORSE members work on in different world regions

Solution type	Climate effects	Co-benefits	Link to descriptions etc
1.Improved cookstoves	Reduces over-use of wood, reduces black carbon	Cleaner cooking, reduced need to buy or purchase fuel	http://localsolutions.inforse.org/
2.High-efficiency improved cookstoves	Reduces over-use of wood, reduces black carbon	Cleaner cooking, reduced need to buy or purchase fuel	http://localsolutions.inforse.org/
3.Biogas, household scale - and others	Reduces over-use of wood, reduces black carbon	Cleaner cooking, reduced need to buy or purchase fuel, provides digestate for gardening	https://www.inforse.org/evd/output/solution_list.php
4.High-efficiency electric (e) pressure cookers	Reduces over-use of wood, reduces black carbon, and reduces use of fossil fuels when sustainable electricity is available	Cleaner cooking, with the efficient electricity use, it saves money to buy fuel in towns where electricity is available	http://localsolutions.inforse.org/
5.Efficient charcoal making	Reduce over-use of wood		http://localsolutions.inforse.org/
6.Briquettes from biomass/agri waste and charcoal dust	Reduces over-use of wood,	Increases income from producers	http://localsolutions.inforse.org/
7.Solar home systems	Reduces fossil fuel for light and electricity	Electricity access for households and shops etc., better and safer light	https://www.inforse.org/evd/output/solution_list.php
8.Mini-grids with renewables	Reduces fossil fuel for light and electricity	Electricity access for towns and villages	
9.Efficient light and electricity use	Reduces fossil fuel for light and electricity	Saves money to buy electricity	https://selnee.rea.org.ua/uk/
10.Electric two and three -wheelers	Reduces fossil fuel for transport	Saves money to buy fuel, reduces urban pollution and noise	https://www.inforse.org/evd/output/solution_list.php
12. Solar dryers	Reduces fossil fuel for drying, reduced food waste	Increases income from producers	https://www.inforse.org/evd/output/solution_list.php

13. Grid-connected solar PV	Reduces fossil fuel for electricity		
14. Solar heating	Reduces fossil fuel for heating, hot water	Saves money to buy fuel and electricity	
Community Energy	Replaces fossil fuel use with renewables for electricity and heating	Supports local organisation	https://www.inforse.org/europe/POWER_CE.htm
Energy sufficiency in developed countries	Reduces fossil fuel use	Can help people to reduce unnecessary energy use	https://www.inforse.org/europe/Energy-Sufficiency-Project.htm

C Policy analysis from INFORSE South Asia

Enhance Climate Ambition and Global Stocktake With Local Sustainable Energy

A large number of local, sustainable energy solutions are important climate solutions. Including them fully in climate plans will make it easier to reach higher ambitions in climate mitigation and adaptation. It is also essential to include the local solutions when assessing progress in climate action with the Global Stocktake (GST), in order to get a full picture of the progress of climate action, as well as the potentials for further actions. With this paper, we showcase local energy solutions that are important for climate action, with examples from South Asia, but with relevance for many world regions. We also highlight how and why to include them in climate plans and GST.

Include local Solutions in Global Stocktake (GST)

The local solutions are often not included or only partly included in NDCs. This gives the risk that they will not be included in the upcoming GST, leaving out an important part of the climate actions that can also reduce poverty and support local development.
Therefore, we propose that in the GST, it is reported to which extent these local solutions are used in each country, how they are included in climate plans and NDCs, and which potential they have for further reductions of emissions in each country.

Include Local Solutions in Climate Plans

When the countries are updating climate plans and increasing ambitions, an important and achievable way is to include local sustainable energy solutions. They both contribute to climate action and poverty reduction, combining targets of access to clean, renewable energy with climate targets.
Therefore, climate plans should include policies that support the local solutions, giving them equal access to funding as centralised and non-renewable solutions. Further, the plans should tailor national climate programs to local solutions, for instance with micro-finance, involving of civil society in implementations etc.

Successes with Local Sustainable Energy Solutions

Cooking efficiently

There is a great potential in South Asia and other regions to reduce burning of firewood to reduce emissions of CO2 and black carbon. In India alone there are around 150 million families using traditional fires for cooking, where improved cookstoves can save them annually around 300 million tonnes of firewood and 340 M tonnes of CO_2 emissions.

POLICY BRIEF

June 11, 2022, UNFCCC SB56, Bonn, Germany

INFORSE – www.inforse.org

INFORSE-South Asia – www.inforse.org/asia
CAN South Asia - www.cansouthasia.net
INSEDA India – www.inseda.org
CRT Nepal - www.crtnepal.org
IDEA Sri Lanka – www.ideasrilanka.org
Grameen Shakti, Bangladesh – www.gshakti.org
DIB, Denmark – www.dib.dk

Policy Brief Contact:
Gunnar Boye Olesen
gunnar.olesen@inforse.org

Background:
The organizations behind this document work together on promotion of local eco-village developments (EVD) solutions to reduce poverty and improve livelihoods. The proposals in this brief are based on our experiences and successes.

References:
inforse.org/asia/EVD.htm
ecovillagedevelopment.net

There are an increasing number of high-efficient and low polluting cookstoves for families, institutions, and commerce. A modern designed efficient two-pot stove with a chimney can a family save 3 to 4 kg of firewood per day and clean the air in the kitchen. *Photo: JWALA Improved Cookstove by INSEDA, India*

Biogas to Replace Wood and Dung for cooking

Biogas plant converts dung and organic waste into methane gas and good quality manure. In South Asia, already millions are cooking with biogas as a smokeless, high efficiency clean fuel in rural areas. The biogas helps in reduction of drudgery among women in collection of fuelwood and provide cleaner air in kitchens, which improves health of women and children.

In India alone there is a potential of constructing additional 75 million biogas plants of 2 m3 which can save 200 million tonnes of fuelwood and 300 million tonnes of CO2 a, as well as reducing black carbon emissions. *Photo: Grameenbhandu biogas plant by INSEDA, India*

Solar home systems

Since 1996, Bangladesh has installed nearly 6 million Solar Home Systems (SHS), to meet the basic electricity demand in an affordable way in rural areas, providing power for lights & fans, mobile phone charging, and powering TVs and radios. SHS are also powering around 200,000 rural businesses, light up religious facilities, and others.

The SHSs are benefiting around 24 million peoples, which accounts for 14% of Bangladesh's population. Between 1996 to 2022, the SHSs have reduced greenhouse gas (GHG) emissions by approximately 10 million tonnes of CO2 equivalent and offset nearly 4.4 billion litres kerosene though SHS. *Photo: Solar home system panel by Grameen Shakti, Bangladesh.*

Planning the transition of villages

Combining the solutions in cooperation with the users can reduce emissions and provide local development including improved livelihood. This is the main rationale behind the Eco-Village Development (EVD), promoting a basket of solutions that are adapted to each village, guided by participatory development of village plans.

The EVD basket of solutions is expanding with new, local technologies. As an example: in Nepal, electric induction cook stoves is a new way to shift towards clean cooking. With its abundant water resources in Nepal, 25% of households can use electric cooking by 2030, replacing LPG and wood. *Photo: Villagers engaged in development of a village plan, IDEA, Sri Lanka.*

Photo by EVD partners

D Specific problems in East Africa.

The **East African region is susceptible to recurrent hazards such as droughts, floods, pests and diseases affecting agriculture and threatening millions of people with hunger and starvation.** These hazards result not only from climate change, but also from the effects of cumulative human activities, which play an increasing role.

The region encompasses diverse farming systems, ranging from the humid highlands of Uganda, the coastal areas of Tanzania and Kenya to the dry lands of Sudan and Ethiopia. Crops including maize, sorghum, and teff are common, as are extensive grazing and intensive dairy, vegetable, coffee, and tea production. However, the region is characterized by low agricultural productivity and, thus, by food insecurity.

The **region's agriculture sectors are highly dependent on rain-fed production, which influences productivity, market supply, and growth of agro-processing sub-sectors**. They have been fairly resilient hitherto, but recently have come under intense pressure from emerging trends such as globalisation, population growth and climate change.

Over 70% of the East African population lives without access to sustainable energy technologies and services. This is a bottleneck in achieving Sustainable Development Goals (SDGs). Another grave problem is the massive unsustainable use of biomass for cooking.

Nonetheless, **the population of East Africa holds the key to offsetting the above challenges**, by taking the lead in actions to reverse these negative trends by pursuing sustainable development in energy, agriculture, water management and in other sectors.