

100% RENEWABLE ENERGY AND POVERTY REDUCTION IN TANZANIA

A Workshop Report



Authors

Msololo Onditi, CAN Tanzania

Irene Garcia, World Future Council

Anna Leidreiter, World Future Council

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Table of content

INTRODUCTION	2
ENERGY IN TANZANIA.....	3
BENEFITS OF RENEWABLE ENERGY IN TANZANIA.....	5
BARRIERS FOR RENEWABLE ENERGY SCALE-UP IN TANZANIA.....	6
HOW TO OVERCOME CHALLENGES TO RE IN TANZANIA.....	8
OPPORTUNITIES FOR POLICY CHANGE IN TANZANIA.....	10
CONCLUSION AND NEXT STEPS.....	11
Appendices.....	13

INTRODUCTION

This report summarizes the discussions that took place at a workshop hosted by CAN-Tanzania, World Future Council and Bread for the World in Dar es Salaam in February 2016 on “100% renewable energy and poverty reduction in Tanzania”. The workshop kicked-off an 18-month project, aiming at exploring the feasibility of 100% Renewable Energy (RE) pathways and its implications for Tanzania’s Sustainable Low Carbon Development and Poverty Reduction Goals. This project builds on the experiences of previous activities in which the three project partners have been engaged in the past years. The idea is to develop a platform to enhance the policy dialogue across sectors and governance levels on this topic.

The workshop brought together 15 Tanzanian thought-leaders from government, academia, media and civil society to identify opportunities for policy change on the particular topic. The goal was to:

- identify opportunities for policy change on scaling up RE for rural electrification
- build capacity and create ownership among Tanzanian opinion leaders for 100% RE as a tool for poverty reduction

This report captures the status of renewables in Tanzania as well the perception of key stakeholders attending the workshop. It gathers and summarizes the main interventions, perspectives and outputs made by the participants of the workshop. Hereby, this report further provides a description of the current energy policy debate and defines the starting point for discussing how to scale up RE to spur sustainable development and eradicate poverty.

ENERGY IN TANZANIA

Tanzania, East Africa's largest country with a population of 49.25 million inhabitants, is also one of the 50 Least Developed Countries (LDCs), with a GDP per capita of 606.66 US dollars in 2014, equivalent to 5% of the world's average, as recorded by the World Bank. The main challenge for Tanzania is thus widespread and persistent poverty, with 67.87% of the population living below \$1.25 a day.

This situation is compounded by the low level of electrification, where only 7% of rural people, and 40% of urban people have access to electricity. In turn, lack of access to modern energy services exacerbates rural poverty due to persistent limited production opportunities and social facilities. Today, only 10% of households have access to the national grid, and only 1% is able to use electricity for cooking. Consequently, throughout the country, household's energy consumption is characterized by a high consumption of traditional energy biomass, such as firewood and charcoal, which account for 90% total primary energy consumption in the country, with electricity representing 1.5% and petroleum products 8%.

Above and beyond, available data reveals that the poor spend about 35% of their household income on energy while the better-off spend only 14%. And, even those connected to the grid opt nevertheless for burning cheaper biomass in an attempt to avoid paying high electricity prices. At the same time, Tanzania vastly relies on imported fossil fuels for its electricity, which is associated with an increased burden to the country's economy and rural communities. This is mainly due to the fact that prices of imported fossil fuels are volatile and have been hindering efforts to rural energy access. Additionally, due to problems with maintenance and supply, the country suffers regular power cuts and high electricity losses (21-23%).

The low level of electricity access, energy security and unreliable energy supplies is unsurprisingly increasing social and environmental vulnerabilities. The unsustainable harvesting of inefficient bio-energy is leading to deforestation and soil erosion, which, in turn, contributes to the intensification and perpetuation of poverty. And an increasing dependence on fossil fuels is causing fuel price shocks, inflation and it is hindering government efforts to expand energy access due to the scarcity of financial resources.

During the workshop, participants highlighted that Tanzania, as a country that is seeking to accelerate economic growth, tackle poverty and increase standards of living for the population, urgently needs to take strong actions to promote energy access for all. Those actions need to be taken in the light of the urgent fight against climate change. Protecting the climate and achieving sustainable development solutions must go hand in hand. As Gertrude Mongella outlined, poverty is among the drivers of environmental degradation in the country as a majority of poor people depend on what the nature provides. Developing and using Low Carbon Development Strategies (LCDS) which are economically and socially beneficial should be the way forward in thinking about energy access for all.

In fact, Tanzania is endowed with abundant, high-quality renewable resources, which could play a significant role in meeting the country's energy needs. This was highlighted by participants from all sectors during the workshop. However, this potential remains largely untapped. As Mary Swai from TaTEDO presented, renewable energy (excluding large hydro) currently accounts for only about 4.9% of generation capacity of which the major share derives from biomass. The contribution of the private sector is significant and encouraged. 59% of total capacity is supplied by the Tanzania Electric Supply Company (TANESCO), while IPPs and Emergency Power Producers (EPPs) provide 26% and 13% respectively, which they sell wholesale to TANESCO. The Public-Private-Partnership projects are primarily driving large-scale hydro and geothermal projects. Solar technology is currently only used for small-scale irrigation systems and electricity provision on household level. Finally, the presented examples show that renewable energy are not domesticated in Tanzania and projects are donor-based and driven.

The government of Tanzania is aware of the energy challenges the country is facing. As the Tanzania Ministry of Energy and Minerals outlines in their documents, the development of the country and their citizens is limited without the opportunity for all citizens to participate in “the mainstream energy economy”. This is why the government has set the target to provide access to 50% of the population by 2025 and at least 75% by 2033.

As highlighted in the drafting of the National Energy Plan and National Energy Policy 2015 by the Government of Tanzania, the “energy sector plays a critical role in the socio-economic development of a country. All productive sectors of the economy are driven by an adequate, reliable, affordable and sustainable energy supply. At present, affordable, reliable and accessible electricity is identified consistently as a major constraint in achieving desired socio-economic transformation in Tanzania”.

The workshop proved that researchers, policy makers and development partners are part of the same line of thinking. Furthermore, National Development Vision 2025, National Five Year Development Plans and National Strategy for Growth and Reduction of Poverty (MKUKUTA), also acknowledge that reality by clearly stating and recognizing that without energy most development objectives cannot be met. Therefore, renewable sources play a key role. The workshop participants in fact highlighted that despite its small share, renewables already respond to the challenges of the present and future in Tanzania. They enhance energy security, generate income, provide employment opportunities and hereby support poverty eradication. Finally, they reduce the pressure on local ecosystems and support climate change mitigation. Among the key drivers, participants underlined the cost-competitiveness and the socio-economic benefits that renewable energy provides. Also, the urgent need to mitigate climate change encourages RE.

As the draft Tanzania National Energy Plan by the Ministry of Energy and Minerals signals, the political will to scale up renewables to meet sustainable development goals exists. The drafted plan includes:

- Facilitate scaling-up of application and utilization of solar energy technologies;
- Enhance wind utilization for electricity generation;
- Promote and scale up efforts of bio-electricity generation;
- Enhance geothermal resources governance and mitigate exploration and development risks.

BENEFITS OF RENEWABLE ENERGY IN TANZANIA

Renewable energy sources including solar and wind provide a window of opportunity to transform the electricity production and supply of Tanzania. Participants of the workshop highlighted that “wind speed at Kititimo and Makambako are 9.9 and 8.9 miles per second respectively; there are between 2,800-3,500 hours of sunshine per year; and there is a geothermal potential exceeding 650 MW”.

In a country where the levels of annual solar radiation range between 4–7 kWh per m² per day, solar photovoltaic can play a key role in the provision of affordable, sustainable and locally generated electricity for lighting, heating and ventilation systems, drying; notably in areas where connection to the main grid is not economically viable. Small-scale off-grid wind turbines along the coastline and in the islands also hold great potential in a country where areas of wind power potential cover more than 10% of the country. Put another way, an area equivalent to the size of Malawi, and with a greater potential than the US State of California, as underlined in a recent report published by the World Bank¹.

Today, there are already signs of what could become a vibrant market for renewable energy, with widespread socio-economic and environmental benefits. Mary Swai (TaTEDO) introduced to participants of the workshop the Sustainable Energy Project for Improving Education, Health and Business Services in off-grid areas that Tatedo is implementing in Tanga, Kilimanjaro, Arusha, Shinyanga, Simiyu and the Coast region. These areas suffered from inadequate quality social services. The introduction of solar PV systems in health centers have provided light for maternity wards, and power for microscopes and vaccine storage. In schools, classrooms, laboratories and computers are now powered by solar PVs. In individual households, businesses and hostels, the installations of solar water heaters are becoming popular for lighting, water heating and cellphone charging.

Due to the decentralized nature, renewable energy are unfolding their impacts mainly locally and regionally. The deployment of renewable energy have improved the provision of social services like education and health. Business opportunities are on the rise for the villagers, who are opening up small businesses such as mobile phone charging shops. This situation has also enabled communities in remote areas where electricity has previously been unknown to charge their mobile phones using solar energy by paying a small amount of money. In turn, the use of mobile phones in rural areas have contributed in markets expansion for different products, easy and timely acquisition of business materials and information from different places.

As asserted by the participants of the workshop: “With electricity access at their localities, rural communities in Tanzania have managed to devote more time and efforts to improve their socio-economic welfare.

¹ For further information, see: The World Bank (2015) “Tanzania: Solar and Wind Potential Could Help Meet Future Power Generation Goals” <http://www.worldbank.org/en/news/feature/2015/06/09/tanzania-solar-and-wind-potential-could-help-meet-future-power-generation-goals>

Interestingly, women have greatly benefited from the access to energy because there is a significant cut down on long hours they used to spend in manual work at home and in the field. Currently, several families in rural areas are able to utilize their time in a more positive way and spend little amount of money for fuel”.

Undeniable, renewable energy has played out differently in each case, shaped by the various purposes of individuals, businesses and communities. However, the deployment of renewable energy technologies has translated overall into:

- More time to students for reading in the evening hours
- More conducive and hygienic medical environment
- Saved time and money
- Income generation and employment creation
- Facilitated communication to improve markets and exchange information on prices
- Well cooked food
- Reduced in-door air pollution
- Reduced deforestation
- Protection of water supply from natural streams

BARRIERS FOR RENEWABLE ENERGY SCALE-UP IN TANZANIA

So far, Tanzania’s potential to shift to renewable energy and the development of a low-carbon economy remains virtually untapped. Despite its acknowledged role to provide security of energy supply, economic development and environment protection, currently renewable energy (excluding large hydro) accounts for only about 4.9% of generation capacity.

While also the potential of renewable energy for rural electrification is recognized, the government is prioritizing the strategy of energy access through grid extension. But the few prospects that financial resources will become available to undertake the electrification of the country is raising people’s concern, worried that the massive investment needed could result in delays and denial of access to energy to the majority of the rural population in the near future. Ongoing actions to generate electricity from natural gas, coal plants and nuclear power are neither considered as beneficial as renewables to the wider population. And hydro power, one of the biggest sources of electricity accounting for 66.5% of total installed capacity, has become too unreliable due to low water levels in the hydro dams caused by recurring droughts.

These encumber efforts to guarantee rural and majority energy access, and to support the deployment of solutions that are technically, economically and financially viable and more profitable to the population. As it was emphasized during the discussions, poor people and their families are particularly more vulnerable because they have few assets to fall back on and limited ability to afford energy related costs and effects.

Exposure to such expenses has been a trap to millions of people living in poverty and undermines their efforts to escape it. It is on bases of this situation where by different barriers that hinders efforts to scale up RE in Tanzania were identified.

First and foremost, participants highlighted the lack of long-term financing available for renewables. Renewable energy technologies tend to have higher up-front costs and low operating costs, which is why access to long-term financing is crucial. Absent this, high upfront costs act as a major deterrent and get individual, businesses and communities' investment decisions biased towards conventional energy technologies.

The difficulty in securing long-term financing is partially due to investors' perception of renewable energy technologies. Often, investors consider that renewable energy is more risky than fossil fuels, meaning that investors it is highly likely they will not obtain a return from their investments. This is either due to lack of knowledge to assess the risks involved, or to a perception of regulatory risk. Participants of the workshop stressed that RE projects are quite vulnerable to changes and amendments in the policy framework. And public financing alone is not enough to ensure the mass deployment of renewable energy that is required to respond to Tanzania's energy challenges.

If used wisely, however, public funding and support can leverage private investment. However, currently, "there is overdependence on donors", as indicated by Gertrude Mongella. She highlighted that, it is crucial to own relevant technologies for RE sustainability and avoid the traditional practice of relying on donors to do everything in expenses of local people. Further Mongella added that the lack of long-term policy making is another challenge that prevents Tanzania from scaling up renewables: "Many of the pledges are practically impossible because in several initiatives, enough time is required to realize the goals. But when it comes to politicians, they use their platforms to promise success within a short time. Politicians should be held accountable in sustainable initiatives like RE especially on professional discourses".

This is why a robust policy framework is crucial. Setting clear policy targets is hereby essential to provide investment security, mobilize stakeholders as well as improve the allocation of resources. The workshop showed that in Tanzania, there is not such a framework, which is further compounded by the lack of inter-ministerial coordination.

As one of the barriers, participants highlighted the fact that ministries work in isolation. A lack of coordination among key ministries including Ministry of Energy and Minerals, Vice President's Office Division of Environment, Ministry of Natural Resources and Tourism as well as Ministry of Transport cause unsustainability of RE projects and difficulties in RE governance in Tanzania.

Technical barriers add up to the challenges in renewable energy deployment. Even though local learning by doing is taking place in Tanzania, participants highlighted that shortage of technical expertise for the design, installation and maintenance of the renewable energy technologies renders the projects more expensive.

Similarly, a low number of professional advisors and technicians for eligible technologies lead every so often to not use professional companies for the selection and installation of technologies, failing to meet the standards required and to address the communities' energy needs. This can hold back renewable energy deployment in Tanzania, and create social acceptance risks if they are not aware, nor do they expect to enjoy the benefits of renewable energy.

In a nutshell, barriers to scale up of renewable energy identified by participants of the workshop can be summarized as follows:

- **Political barriers:** These barriers relate to the regulatory framework of the renewables (with unclear strategy about the role of renewables and lack of policy consistency), as well as the government role in driving the deployment of renewables.
- **Financial barriers:** These barriers are associated with the lack of long-term financing with overdependence on donors and public funding, high perceived risks and up-front capital costs and long payback time.
- **Technical barriers:** These barriers concern the import-driven nature of the renewable energy sector in Tanzania, with shortage of trained people for the designing, planning, installation and maintenance of renewable technology.
- **Behavioral barriers:** These barriers are primarily related to the low level of awareness of the population regarding the benefits of renewables and erosion of consumer confidence because of inappropriate system standards.

HOW TO OVERCOME CHALLENGES TO RE IN TANZANIA

This situation calls for a review and reform of the existing policies for energy deployment in Tanzania to ensure reliable and sustainable energy services for all, to tackle energy access setbacks, to ensure multi-stakeholder participation, to strengthen local governments in their fight against poverty and to advance finance mechanisms for renewable energy deployment. The development of a comprehensive and robust policy framework would not only make a significant contribution to the existing country's energy production and supply system, but would also move Tanzania quickly towards achieving the goal of becoming a middle income country, as envisioned in the Tanzania National Development Vision 2025.

The discussions at the workshop provided further details on the elements to be included in the policy framework:

Policy elements

At present, there is no effective mechanism or legal framework for facilitating energy access for the majority and enhancing inter-sectoral coordination among key sectors such as energy, environment, forestry, agriculture, land use, health, and social development. Accordingly, the production, transmission and consumption of energy are managed in a disharmonized and not interlinked manner. Ensuring the coordination and participation of policy makers and actors in all sectors across the entire energy value chain is crucial. The policy framework needs to be embedded in the national economic development plan, with a focus on marginalized communities lacking energy access, and with strategies fostering the industrialization of the country through RE deployment.

Financing elements

Coherent and robust policy framework incorporating the necessary infrastructure investments and guarantees are needed to provide security and unlock the financial bottleneck facing RE sector in Tanzania. Participants also called for policy makers to consolidate Public Private Partnership.

Technical elements

The lack of human and institutional capacity is a drawback for renewable energy technology adoption. In order to realize RE in Tanzania, participants highlighted the need for domestication of RE related technologies and expertise. An integrated policy framework in Tanzania should put more emphasis on capacitating local experts about RE technologies coupled by industrialization (including small scale industries/factories), and mainstream the use of RE as a direct engagement of local people especially those in need of efficient and reliable access to energy.

Further, exchange of knowledge and cooperation with other RE champions as a base for enhanced technological transfer is needed.

Behavioral elements

Investment in capacity building and awareness raising on the merits of RE among key stakeholders, policy makers and actors in all sectors across the entire energy value chain is crucial. For this, one crucial step is the gathering of information from good practice in RE sector both in Tanzania and abroad, as a base for disseminating knowledge to a wide audience through a variety of multi-stakeholder dialogues. Even more important, community inclusion and scientific studies are to be insisted in policies to facilitate the development and implementation of successful national RE planning and poverty reduction in bases of local priorities. This will avoid repeating previous mistakes and will allow to link community thinking with the relationship between energy, environment and livelihood.

These recommendations developed by participants during the workshop underline that no single action or not one specific institution will be able to address the challenges. Rather, the government must ensure a policy framework with:

- A holistic approach, with a clear, long-term and ambitious strategy to integrate RE deployment into Tanzania's economic development plan and clearly articulate actual number of potential employment opportunities that will be a result of implementation of RE projects;
- The involvement of a wide array of stakeholders across sector and governance levels (both horizontally and vertically) with discussion platforms, alliances, inter-ministerial linkages to identify needs and gaps, and related investment opportunities and job creation;
- A coordinated strategy and joint initiatives to scale up renewable energy deployment and leverage awareness on the socio-economic and environmental benefits of renewables.

OPPORTUNITIES FOR POLICY CHANGE IN TANZANIA

Participants to the workshop showed, nevertheless, optimism about the future deployment of renewable energy in the country. As a matter of fact, when asked what they thought would be the share of renewable energy in Tanzania by 2030, the average figure expressed was 55%. The current political scenario in Tanzania also gives confidence that the required transformation of the energy sector might be within reach despite the challenges.

At present Tanzania is undertaking a nation-wide local government reform program with the goal of reducing the proportion of Tanzanians living in poverty, and the purpose of improving quality, accessible and equitable public service delivery, particularly to the poor. The Tanzania Development Vision 2025 aims to coordinate and direct all efforts and natural resources towards the core sectors that will allow the country to achieve its goals: high quality livelihood; peace, stability and unity; good governance; a well-educated and learning society; a competitive economy capable of producing sustainable growth and shared benefits. In this regard, workshop participants reported that renewable energy has a truly transformational role to play. In addition to the Tanzania Development Vision 2025, the government is drafting the National Energy Plan to “unlock challenges prevalent in the energy sector, improve performance and spur prudent and optimal use of the energy resources for the benefit of the present and future generations”.

Further, it was highlighted that the new government is receptive for cooperation and partnerships as well as that there is an opportunity for adapting national budgets. For industrialization plans of the government, renewable technologies are an important enabler to deliver the needed energy. Another reason for participants to see the window of opportunity wide open is the fact that the young generation is more aware of environmental issues and is familiar with using technologies.

Meanwhile, as presented during the workshop, Tanzania can also benefit from the international momentum. Energy access has been given a special attention at a global level, e.g. in September 2015, the United Nations adopted the Sustainable Development Goals by consensus of the 193 member nations, with specific targets to be achieved over the next 15 years. Among the key themes agreed was energy, aiming to “ensure universal access to affordable, reliable and modern energy services by 2030” and “increase substantially the share of renewable energy in the global energy mix”.

Another UN-led initiative which has generated significant support since its launch in 2011 is the Sustainable Energy for All (SE4ALL - making sustainable energy for all a reality by 2030. One of the first countries to opt-in on this initiative was Tanzania, confirming plans to achieve the UN SE4ALL goals through massive investment from both the public and private sectors in the energy industry.

Launched by African heads of state at COP21 in Paris, The African Renewable Energy Initiative (AREI), under the mandate of the African Union, aims at enabling the installation of large-scale renewable energy capacity on the African continent by 2020. And it plans to mobilize Africa’s large expanse of clean energy sources to generate around 300GW by 2030.

With a mandate from countries around the world, IRENA (International Renewable Energy Agency) also encourages governments to adopt enabling policies for renewable energy investments, and provides practical tools and policy advice to accelerate renewable energy deployment. Along the same lines, REN21 (Renewable Energy Policy Network for the 21st Century) is the global renewable energy policy multi-stakeholder network that connects a wide range of key actors to facilitate knowledge exchange, policy development and joint action towards a rapid global transition to renewable energy.

These interrelated initiatives will contribute, in one way or the other, on similar interventions, e.g. moving financial streams towards low carbon development and GHG emissions reduction by 2050. And they all converge in their goal to ensure that African countries leapfrog to RE systems that support their low-carbon development strategies while enhancing economic and energy security.

With a comprehensive and robust policy framework, Tanzania can draw together the commitments made under these various initiatives, and use them to the best advantage of the country, advancing both its national and international agendas to provide energy security, income generation and poverty eradication, as well as environmental protection.

CONCLUSION AND NEXT STEPS

Renewable energy has the potential to transform not only the energy system but entire societies. They are a key tool for tackling the twofold challenge of power generation and universal access. Today Tanzania's energy system generates extremely limited, unreliable and costly supplies of electricity through grids that do not reach most of the population. The result is an energy balance in the country dominated by the use of inefficient, pollutant and high-cost traditional sources of biomass, such as charcoal and firewood.

Besides that, average demand for electricity is growing at 10-15 percent per annum. Without reliable, affordable and clean power, energy will remain a powerful bottleneck on Tanzania's prospects for the desired socio-economic transformation. Today, renewable energy is viewed in Tanzania not only as a tool for improving energy security and mitigating climate change, but as a powerful investment propelling economic development, job creation and reducing dependence on imported fuels while encouraging local value addition. External developments, both of initiatives and agreements such as SDGs, Paris Agreement or AREI, reinforces this trend and encourages the country and its citizens to move towards the widespread uptake of renewable energy.

Major breakthrough in renewable technologies and fast drop in prices have the potential to bring energy to the rural and urban population of Tanzania within reach, empowering them with electricity, income and health. Nevertheless, a prerequisite for the proper scale up of renewable energy solutions is the policy framework. A comprehensive, stable and robust regulation, product of a multi-stakeholder process, with a clear vision, commitment and coordinated actions to overcome the political, financial, technical and behavioral existing challenges.

The existing political will in Tanzania is a very important force to overcome internal barriers and vested interests to catalyze the transformation towards a country powered by renewables. To maintain this political momentum, participants of the workshop agreed on the next steps towards influencing action in the current policy framework:

- Identify necessary policy recommendations and strategies for the new National Energy Plan and Renewable Energy budget allocation, where there is multi-stakeholder and cross-sectoral collaboration, and where improved access to energy goes hand contributes actively to economic growth, poverty eradication and environmental protection;
- Win local multipliers and engage leaders: Strengthen synergies, networks and platforms for multi-stakeholder dialogue, including local businesses, parliamentarians, media and civil society groups to build the right level of awareness and intensify the deployment of renewable energy;
- Inspire stakeholders and build up hands-on knowledge on how 100% RE adds value to local economic development and community sustainability. This will comprise a study tour to Bangladesh opportunity to learn first-hand the country's national off-grid electrification scheme, which is the world's largest and most dynamic and it is benefitting more than 18 million people to date and have yielding lessons that can be applicable in the context of Tanzania.

CAN-Tanzania, World Future Council and Bread for the World are committed to support Tanzanian policy-makers in this endeavor. Policy dialogue goes hand in hand with policy learning and is a prerequisite for sustainable development. Therefore, the goal is to enhance the debate and reach out to other stakeholders to achieve the overall Sustainable Development and Poverty Reduction Goals set by Tanzania.

Appendices

1. Agenda of the workshop

Thursday 24 th 2016	
09:00	Registration of all Participants
09:30	<p>Welcome remarks <i>Sixbert Mwanga, CAN Tanzania</i></p> <p>Introduction of participants and warm-up <i>Anna Leidreiter, World Future Council</i></p>
10:00	<p>Introduction of the project <i>CAN Tanzania, Bread for the World, World Future Council</i></p>
10:15	<p>The role of an integrated policy framework to alleviate poverty and enhance renewable energy in Tanzania <i>Gertrude Mongella, WFC Councilor and Special Advisor to the ECA Executive Secretary and UNESCO Director General</i></p>
10:45	<p>Poverty reduction through renewables: a practical case from Tanzania <i>Mary Swai, TaTEDO</i></p>
11:00	Photo and Coffee/Tea Break
11:30	<p>World Café discussions on the following guiding questions: <i>Facilitators: Joachim Fuenfgelt</i></p> <ul style="list-style-type: none"> • What role do renewable energies play in Tanzania today? • What are the drivers and benefits of RE in Tanzania? • What are the barriers for further scaling up RE in Tanzania?
12:45	Lunch Break
14:00	<p>Renewable Energy for sustainable development <i>Irene Garcia, World Future Council</i></p>
14:15	<p>International processes relevant for RE <i>Joachim Fuenfgelt, Bread for the World</i></p>
14:30	<p>Facilitated Dialogue on the following guiding questions <i>Facilitators: Anna Leidreiter</i></p> <ul style="list-style-type: none"> • What are the relevant policy areas that need to be addressed to ensure implementation of global agreements (COP21, SDGs etc.)? • What are the policy elements to be integrated to ensure poverty reduction through renewable energy?

	<ul style="list-style-type: none"> Where are current policy hurdles that hinder RE deployment for poverty reduction?
15:45	Coffee/ Tea Break
16:00	<p>Facilitated Dialogue on the following guiding questions: <i>Facilitators: Irene Garcia, World Future Council</i></p> <ul style="list-style-type: none"> Where are the opportunities for policy change in the current Tanzanian policy framework to scale up RE to boost socio-economic development?
16:45	<p>Closing Remarks:</p> <ul style="list-style-type: none"> CAN Tanzania, Bread for the World, World Future Council
17:00	Networking Reception

2. List of participants

Last Name	First Name	Organisation	Position
Mongella	Getrude	AWA	WFC Councilor and Special Advisor to the ECA Executive Secretary and UNESCO Director General
Magesse	Ngassani	CCT	Program officer
Mikenze	Regina	AWA	Personal assistant
Zephania	Binto	ECOHO	Chairman
Kalumanga	Elikana	IRA-UDSM	Researcher
Mushi	Lea	TBC	Journalist
Swai	Mary	TaTEDO	Project Manager
Kalokola	Friday	Tanzania climate change alert and resilience	Field officer
Nyanda	Emillian	Ministry of Energy & Minerals	Energy officer
Urioh	Tajiel	The GREEN Icon	Director
Kiwasaka	Hildegarda	WRDP	Chairperson
Daniel	Dickson	CAN Tanzania	Member
Berger	Julia	Hanns Seidel Foundation	Resident Representative
Kirste	Kathrin	Hanns Seidel Foundation	Intern
Fünfgelt	Joachim	Brot für die Welt	Policy Advisor
Garcia	Irene	World Future Council	Policy Officer
Mwanga	Sixbert	CAN Tanzania	Director
Leidreiter	Anna	World Future Council	Senior Programme Manager