



TRANSFORMING TANZANIA'S CHARCOAL SECTOR PROJECT

Report of the 2nd National Stakeholders' Biomass Energy Workshop held at Serena Hotel Dar es Salaam on 22nd November 2016



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1.0 INTRODUCTION

The Tanzania Forest Conservation Group (TFCG) in collaboration with Tanzania Traditional Energy Development Organization (TaTEDO) and Tanzania Community Forest Conservation Network (MJUMITA) organized the Second National Stakeholders' Biomass Energy Workshop held at Serena Hotel in Dar es Salaam 22nd November 2016. The Workshop theme was "Breaking the silence about charcoal and fuel wood: Reaching consensus on policy priorities to enhance environmental sustainability, good governance and energy security in relation to charcoal and fuel wood in Tanzania."

A total of 76 participants (of which 59 were male and 17 female) took part in this one-day Workshop bringing together stakeholders from both Central and Regional Government Offices; Non-Governmental Organizations; Community Based Organizations; Development Partners; Media; and the general public. The funding of this Workshop was made possible through generous support of the Embassy of Switzerland in Tanzania.

Before the Official Opening of the Workshop a Keynote Speech was presented followed by three major policy development presentations. A long Plenary Discussion was carried out just before lunch with a primary purpose of articulating more on issues related to policy developments and plans in energy, forests, land, environment and local government. After lunch, a Panelist of five experts in the area of biomass energy carried out discussions on priority areas for changes in policy and practice in enhancing the environmental sustainability, governance and energy security in relation to fuel wood and charcoal. More Plenary discussions were held after Panelists articulations, with questions raised being elaborated and replied by the experts. A way forward was articulated by all stakeholders and few closing remarks and vote of thanks made.

2.0 WORKSHOP OBJECTIVES

The following were enumerated as key Workshop objectives:

- To enhance stakeholder understanding of recent changes in policy and practice in local government and in the energy, forest, environment and land sector in relation to charcoal and fuelwood.
- To promote stakeholder dialogue on how to break the policy silence on measures to enhance the environmental sustainability, good governance and energy security for charcoal and fuelwood.
- To share recent progress and lessons learned from piloting sustainable charcoal production in Morogoro Region.
- To agree on priority policy changes needed to enhance the environmental sustainability, good governance and energy security the sectors in relation to charcoal and fuel wood.

3.0 OFFICIAL OPENING

The official opening session of the Workshop comprised the Welcome Remarks by the Executive Director of TFCG and Keynote Speech by a Biomass Energy specialist from Sokoine University of Agriculture. The session also included Remarks from Her Excellency the Ambassador of Switzerland and finally the Official Opening Remarks from the Minister of State in the Vice President's Office Union Affairs and Environment.

3.1 Welcoming Remarks



In his Welcoming Remarks, Charles Meshack, The Executive Director of TFCG reminded participants on workshop objectives and mentioned key issues which were identified in the first workshop in 2015 that included; absence of a supportive policy environment; low investment in the sector; misconceptions and lack of awareness; expense and complexity of the land use planning process; and informality of the sector. It was therefore imperative that the current workshop focus more on policy. Beside Policy being a top priority for stakeholders in 2015, there are currently important policy change in forest; environment; energy; climate change. Also the new Government is committed to improving governance. Finally, there are research highlighting relevant policy gaps and emerging trends which makes matters easy in fulfilling issues related to Policy.

The Executive Director extended his Welcoming Remarks by presenting more about the Transforming Tanzania's Charcoal Sector Project funded by the Embassy of Switzerland in Tanzania and jointly implemented by TFCG, TATEDO and MJUMITA in Kilosa, Mvomero and Morogoro Rural Districts. He elaborated on Sustainable Charcoal Model Theory of change which included formalizing village forest and land management and tenure; applying sustainable harvesting principles; organizing producers and improving production efficiency. The Theory of change is also based on sustainable charcoal production embedded in community-based forest management. This approach brings improved livelihoods for forest owning communities; better governance; less deforestation; climate change adaptation and mitigation. Among the nine useful steps taken in this sustainable charcoal model include, conducting village land use planning and establish village land forest reserves; integrating charcoal forest management units in the Village Forest Reserves i.e, areas designated for sustainable charcoal production; assess biomass; establishing good governance for the reserves with permits issued based on annual harvesting quota for that year using transparent procedures and record-keeping and fees retained by the villages and by-laws enforced rigorously; training

producers in good governance and sustainable production; and charcoal forest management units are managed to allow natural regeneration over a 24 year harvesting cycle.

Lastly, in his presentation the Executive Director also underscored the positive results of the Project and enumerated a number of challenges and barriers, which include an absence of a clear, consistent national policy on charcoal. There are however a good number of opportunities and enabling factors in the Project which show that formalized, sustainable charcoal value chain is competitive even in the current market; can deliver significant revenues for community development; can incentivize and enable communities to manage large areas of woodland and forest on village land; and can reduce deforestation. The presenter therefore advocated for the Project scaling up nationally and looked ahead to Phase Two of the Project.

3.2 Keynote Speech



The Keynote Speech to the Workshop was presented by Professor Romanus Ishengoma. Professor Ishengoma is a Biomass Energy Specialist from College of Forestry, Wildlife and Tourism at Sokoine University of Agriculture in Morogoro. His presentation covered aspects of energy and development and the energy situation in Tanzania reflecting on fuel wood and charcoal with aspects of production and transportation being elaborated. Policy issues and challenges were also revisited.

Prof. Ishengoma elaborated that information is available from several sources; each of the available information confirms that biomass energy is important for Tanzania. There is relationship between energy and development. We are very ambitious about energy situation in Tanzania. However, we should know that, the situation will not change overnight. If we accept that the situation will not change overnight, then we need to act. For example wood consumption for drying tobacco can be reduced; charcoal is taken for granted because there are so many producers and can be purchased everywhere in urban areas. Charcoal is used by majority of Tanzanians. Rural earnings from charcoal are greater than those from coffee, tea, cottons, sugar etc. But charcoal is inefficiently produced and inefficiently used. It is unsustainably produced. Some of the charcoal is imported to Tanzania. Charcoal is mainly used in urban areas primarily by urban households, restaurants, bars and many similar places.

He went on to show that the sector is characterized by weak governance and weak law enforcement. Money collected from charcoal does not reflect consumption and the sector has remained informal. Significant changes need to be introduced because there is no comprehensive, unified, national, regional or local vision for the sector. It is viewed as traditional, as inferior, as retrogressive, environmentally destructive and tolerated energy source that will grow less important as economic development occurs and modern energy sources become more widely available. However many Tanzanians cannot afford fuel switching. If nothing is done to address the rampant deforestation and degradation and no additional plantations are established the annual deficit will increase. Most of the policy statements do not address wood fuel. In general there is a significant disconnect between the way that charcoal is treated in national policies and its economic importance. While the National Energy Policy 2015 recognizes that woodfuel is the most widely used form of energy in Tanzania it fails to provide any policy objectives or statements so as to offer national guidance on woodfuel. Thus significant changes are needed to regularize and legalize the sector.

Recommending the way forward Professor Ishengoma concluded that;

- Wood fuel need explicit recognition and a key place in the policies and strategies of Tanzania.
- A policy and legal framework is required to guide the sustainable development and growth of this sector
- Significant changes (based on policy) need to be introduced to make wood based energy more modern, more efficient, sustainable, cleaner in both production and use. These need to be formalized into the economy so as to continue as an important source of economic livelihoods to thousands of Tanzanians.
- Since the National Energy Policy is now approved (and provide limited guidance to biomass energy i.e. 85%), a separate Biomass energy policy is required. In the absence of such a policy, the Biomass Energy Strategy is unlikely to secure required political support needed to address existing challenges.



3.3 Remarks from the Ambassador

Her Excellency the Ambassador of Switzerland Florence Tinguely Matli started by observing that lot about charcoal sector has been covered in the Welcome Remarks and Keynote Speech and what she can add is that;

All the challenges are clearly known and are clearly recognized. There is a fundamental problem of management of natural resources when the forests and woodlands are primary sources of energy for most Tanzanians and will remain important for at least twenty years to come. Charcoal is a source of income to the

poor Tanzanians and many charcoal producers are extremely poor and capture only a small value of the charcoal they produce. The challenge is to manage energy use in the cities. We have to think on solutions that will address the growing population in urban areas. Joint efforts are needed to shift from business as usual to sustainable utilization of natural resources. There is an urgent need for managing the sustainable charcoal sector and it is possible to protect and use forests in sustainable and economic ways.

Citing example from her country, The Ambassador mentioned that, Switzerland is a small country, covered with high mountains and the pressure of the population on the environment is clearly visible. However, there has been increasing forest cover despite of the increasing pressure. Technologies that improve efficiency in utilization of wood have been important in achieving those results. Therefore, Tanzania can as well use the experiences from her country to improve natural resource management. Transforming the Tanzania charcoal sector requires commitment from all the stakeholders. The National Biomass Energy Strategy highlighted the need for clear Biomass Policy. There is a huge economic potential in the charcoal sector. Stakeholders can align their understanding of the issues and agree on the solutions that would help to address the situation, while also-taking charcoal as part of the solution to address energy issues in Tanzania.



3.4 Official Opening Remarks by the Minister

Honorable January Makamba (MP) Minister of State, Vice Presidents Office, Union Affairs and Environment was the Guest of Honour in this Workshop. He delivered His Official Opening Remarks by stating that the title and theme of the Workshop are significant and important. The topic is very close to his heart, and to the Government plans. He therefore congratulates the organizers of the workshop. If we want to succeed as a country, one of the critical elements is to sort out our energy needs. Literally energy runs the world. For our part, when we look at that consumer basket we see energy. When we talk about quality of life and we talk about

standard of life we see energy. Given our settlement patterns in Tanzania and geographical location-all that dictates that charcoal will continue to be around for a very long time. Ambitions that we have for electricity and gas discourages efforts to look for sustainable biomass. Empirical reality shows that charcoal use is not correct. We know that as our population is growing and as the population grows, charcoal use will be impacted in a massive way. As electrification goes up, we had expected that charcoal use would decrease, but that is not the reality.

There are two schools of thoughts. Switchover school of thought, whereby modernity dictates, charcoal is bad and move to gas, and electrification is faster. This school of thought is dominant and it had led to one point in 2006 the banning of charcoal whereby two weeks later they had to reverse after the situation became very bad. In fact this school of thought is out of touch with the reality in the country. It has very dominant voices but we know that it is wrong. The second is the Cinderella school of thought. This school of thought is trying to see biomass being sustainably used and produced. People in this side of thought need a bigger voice to push this Agenda. Honourable Makamba assured the Workshop participants that in him we have a very reliable partner in this agenda. He understands that, the existing documents (policies, laws and regulations) occupy a contradicting approach as far as Cinderella approach and Switch over approach are concerned. Referring to his field visits recently in some of the regions including Morogoro, he mentioned that, in his visits he observed cannibalization of our forests. He noted that we may lose our forests in the next few years if we don't take efforts to address the situation. As we are concerned about biodiversity protection and conservation, Honourable Makamba thinks that deforestation is a bigger problem than poaching, as deforestation could have multiple effects on the ecosystems and biodiversity including lives of wild animals.

Looking into the market value of charcoal, the Honourable Minister mentioned that, if we take a full account of a cost of a bag of charcoal you could probably find it is more than three hundred thousand shillings. But because it is harvested freely from the natural forests (shamba la bibi) its real value is hardly reflected in the market value. Much as we have very elaborate forest harvesting regulations, guidelines, laws, policies, etc can hardly be achieved if the incentives for local government officials and people are not sufficient to encourage sustainable management of our forests and woodlands. From his point of view, and he stands to be challenged, probably the regulation architecture and approach are different things and we need to do them both. We need to find a way of packaging them.

Decentralization of energy matters mainly biomass energy is a good thing. But we need to realize that energy is business and the Government is orienting itself towards that direction.

Products have to undergo the taste of markets and viability, otherwise we are going to have energy situation that is deceptive thus getting into the situation where it is more difficult for people than it is now. Portly, in response to that, his Ministry has set up a competition, with the focus that energy source has to be competitive in the market in the way

it is produced and in the way it is marketed. As we are here, I think our intellectual positions and minds are in the right direction and we need to focus on that. Sharing his observations when he visited Tabora recently; the Minister found tobacco farmers drying tobacco using high value timber species such as mninga etc, pointing out that, probably the value of the tobacco dried using those trees was lower than the value of the trees. He intervened the situation and issued a stop order. The Minister thinks that proper technologies are important in drying tobacco and also instead of using a whole tree farmers could alternatively use branches. Honourable Minister thanked the Government of Switzerland for working with Tanzania in this area and assured them that they have chosen a very good area. He concluded by saying, charcoal has been studied a lot in this country what that was needed is action.

Welcoming the Honourable Minister to officially open the Workshop, the Chairman of the Parliamentary Committee on Trade, Industry and Environment, Honourable Dr. Dalali Kafumu who was also the Chairman of the Official opening session, recognized the presence of the guest Honour and Her Excellency Ambassador Florence Tinguely Mattli the Ambassador of Switzerland and other invited participants of the workshop. Honourable Kafumu pointed out that, charcoal is important despite of having other energy sources. The Swiss supported Project is very important as it is protecting the environment while at the same time giving income to Tanzania citizens. He urged participants to look and see and find ways to encourage the government to put more investment in this sector. Tree based biomass account for ninety percent of the total energy consumption in the country and demand is expected to grow. He mentioned that, this year the Government allocated two million Tanzanians shillings as budget for environment, and that the amount allocated by the Government was not sufficient. Efforts need to be made to increase resource allocation.

In his vote of thanks to the Honourable Minister, the Executive Director of TaTEDO, Eng. Estomih Sawe was grateful to the Minister for accepting our invitation, even more thanks for appreciating what we are doing and his commitment in this. Referring to one of the meetings he attended more than 30 years back whereby the guest of Honour at that time mentioned that a sound and compressive policy was needed for charcoal sub sector, this has remained pending up to now. Eng Sawe agreed with the Minister that we need to manage our forests sustainably and come up with good technologies, so that the sector can contribute to sustainable development of the country.

4.0 PRESENTATIONS OF POLICY DEVELOPMENTS AND PLANS

Since one of the main objective of the Workshop was to enhance stakeholder's understanding of recent changes and development in policy and practice in energy and other areas that impact on charcoal and biomass energy, a session was planned in the Workshop to have presentations from Government Officials from Forestry, Lands, Environment and Local Government Management. Three presentations were made as follows;-



4.1 Forestry

Seleboni J. Mushi, on behalf of the Director of Forestry and Beekeeping at the Ministry of Natural Resources and Tourism, presented on Policy Development and Plans in Forestry to support sustainable charcoal production in Tanzania. His presentation covered Legal Frameworks in Forestry; National Forest Policy; Forest Act; National Forest Programme and Guidelines; and stakeholders' contributions in policy development to support sustainable charcoal productions. Mr Mushi stated that the overall goal of the draft national forest policy is to enhance the contribution of the forest sector to the sustainable development of Tanzania and the conservation and management of her natural resources for the benefit of present and future generations. He further indicated that the Policy had statements on wood fuel with directions. It states that establishment of private woodlots and plantations, planting of trees on farm for woodfuel production, efficient wood energy conversion and use technologies and alternative sources of energy will be promoted. (Statement 14) and provision of alternative livelihood to charcoal production and sale in the rural areas will be promoted so as to minimize forest degradation and damage to the environment. (Policy Direction).

Somehow some area related to biomass energy are addressed in several documents. However there are gaps especially in Programmes and Guidelines. This led Mr. Mushi to conclude that;- Continuing with unsustainable charcoal and fuelwood (biomass energy) energy means having significant impact on deforestation and forest degradation; continuing with the existing situation of lacking clear policies and waving away to nobody business will lead the charcoal business into chaos and in turn neither benefit the government nor communities both with forests and living adjacent to forest reserves; shifting to other alternative sources under the current situation, need time and resources which are not available.

Mr. Mushi therefore recommends that a review of the forest act to reflect sustainable charcoal should be done; prepare specific guidelines or review the existing ones to capture biomass energy production and transportation; constantly update harvesting guidelines; put in place a tool to monitor charcoal trade including production and

transportation; Ministry of Energy has to prioritize and accomplish already initiated Biomass Energy Strategy; and hold meetings with other ministries viz Agriculture and Livestock, MEM, Land, Housing and Human settlement to iron out contradicting issues on land tenure.



4.2 Lands

Dr. Adam Patrick Nyaruhuma, who is the Head of Land Investment Unit in the Ministry of Lands, Housing and Human Settlements Development, made the second presentation on the Draft National Land Policy, 2016. The purpose of revision has been necessitated by the current policy being twenty years old with proposals of deleting outdated policy statements. The revision is also necessary to address emerging needs and challenges such as pressure of land needs for investment as well as land use conflicts.

Dr. Nyaruhuma presented the position of Land Policy of 1995 in respect of certain issues with stakeholders comments, indicating that there was still room to receive more comments especially those that will solidify present land demands. Among the issues presented include Village Land administration; settlement of Land disputes; Pastoral lands; Land for investment; protection of Special Areas; Village boundaries; Land Policy and Land use planning; Land Policy and environment including management for sustainable environment; and finally Land Policy and Good governance.



4.3 Environment and Local Government

Julius Kiiza is the Principal Forest Officer with the President's Office Regional Administration and Local Government (PO-RALG). He made the third presentation in this session which provided an update on Policy developments at PO-RALG in relation to Environment sustainability as well as indicating current measures being undertaken to support and encourage Local Government Authorities to invest in Community Based Forest Management.

Mr. Kiiza stated that recently PO-RALG has been updating the Rural Development policy (2003) in order to suit the current needs of the Tanzania Environment and good governance. The review is done in order

to assimilate the current scientific and technological changes so as to capture the best practices for our local communities for their development. The Rural Development Policy emphasizes on environmental conservation as it has been identified that there is a great loss in soil fertility that has led to low productivity. The overutilization of the natural resources has resulted in desertification in some of the areas of the country. It should be known that, almost 50% of the rural LGAs (District Councils) own sources revenue depends on the natural resources available. So it is very important for them to protect their environment to have a sustainable development and good revenue collections.

PO-RALG as custodian of all LGAs has been and will continue to direct LGAs to allocate funds through their own sources revenue for CBFM activities.

5.0 PLENARY DISCUSSIONS

During this first Plenary discussion participants were able to discuss issues on the Welcoming Remarks as well as the Keynote Speech. The last three presentations on Forestry, Lands, Environment and Local Government were also discussed. Questions were raised and answers were provided. Further elaborations and interventions were made.

5.1 The Charcoal Sector Project

One of the participants appreciated the Charcoal sector Project and said that the model currently being implemented in Kilosa and Morogoro Districts looks fine and is set to be an excellent stepping stone for the Government to develop sustainable charcoal production and utilization. He however wanted to be enlightened on the current situation of the blocks that were harvested in the first, second and third years. The participant also wanted to hear about practical challenges and what the project did to address those challenges.

A response was provided that practical challenges faced by project included; conflict of interest of Tanzania Forest Services (TFS) and village land forests; secondly, TFS has continued issuing licenses in the village land forests; thirdly, most of unreserved forests on village lands do not belong to communal land but rather to private people. Since there is a call from the government to develop land and since that means clearing land for agriculture, that situation is going to increase deforestation (individual forests- soon will be converted into agricultural land). Another challenge is illegal charcoal production. There are charcoal producers who are doing illegal charcoal production.

Another participant wanted to know if there has been a prediction on the extent of the degree of deforestation that would be reduced if the Project Model is scaled up and nationally adopted. It was responded that the Project has a monitoring system and working together with Sokoine University of Agriculture (SUA) have put up a control mechanism which will ensure that in 24 years time it will be possible to harvest natural forests in the same plots.

Commenting generally, one of the participant observed that from his experience and also from making follow up of the sustainable charcoal project in Kilosa, the model is good if well planned and executed. It has to be packaged with conservation aspects in mind in order to allow regeneration to take place. Human activities need to be controlled in the harvested areas. We need to intensify the conservation controlled as much as possible in the harvested charcoal plots. For example, grazing or any other human activities which can affect regeneration in those areas should be controlled.

To elaborate on the above comment, Prof. Ishengoma said that two years ago he was involved in the review of this Project. The question of whether there is regeneration or not is out of context. The review team visited the Project villages and there was regeneration. In his presentation he showed tree regeneration in a sisal plantation as one of the examples. He pointed out that, natural regeneration is obvious. He commented that, there are no better alternatives. If there are short comings let us share rather than discouraging the project. And if there are other better alternatives let us put them on the table. But as long as there are no better alternatives, it is important to put our efforts together so that the Project goal could be achieved.

5.2 On going Policy Review

From various presentations there has been a lot of talking about the on going Policy Reviews. Participants wanted to know what measures were in place to ensure that these policies talk to each other? In responding it was elaborated that in order to make sure that the reviewed policies talk to each other as much as possible, all Policy Reviews involve stakeholder consultations at different levels. Each Ministry doing the Policy Review makes these consultations and Cabinet Ministers moderate the whole process.

On the other hand, some participants observed that a key concept is trying to promote policy that embraces natural resource management. Land policy does not explicitly include natural forest management. The policy should embrace the worth areas that are rich in natural forests rather than converting those lands into agriculture etc. The same land could be used as natural forests. In responding it was stated that, what the owner/the company should do on the land should be according to the title deed. The government is insisting those owning lands should develop them according to stated use on their title deeds. This has no relation to how the village land is used. It has nothing to do with converting the forest land in the villages to agriculture.

5.3 Investing in Forest Sector

Some stakeholders wanted to know what mechanism was in place to ensure that the Government is making enough investment in the forest sector? Others observed that LGAs are supposed to commit a portion of their resource to funding forest management/development. Is there a formula which indicated what percentage they should commit to this?

In responding it was stated that, PORALG had provided guidelines to the local government authorities that they should at least allocated sixty percent of own source revenues to development projects-which among other things include investment in the forest sector. This year LGAs have allocated about Tshs 3,755,467,000. During auditing, CAG will check if they have complied with the budget guidelines as provided by PORALG and those LGAs that have not complied with the budget guidelines will be penalized.

5.4 Coordinating initiatives

One of the participants wondered who is coordinating the different initiatives to make sure that we have a better trade off? There is a serious disconnection between local priorities and national priorities. There is demand for more land but at the same time we have forest in village lands which is not protected and is subjected to agriculture. There are competing priorities on the same land. Experts have to sit together to iron out these issues.

In replying, a representative from the Ministry of Lands stated that, the Land sector is coordinating all the other sectors. Its mandate is to do planning, surveying and demarcating boundaries. The Land Use Planning Commission was established by the government purposely for addressing all issues relating to competing land uses and land use planning. Therefore, the Commission was put in place to help the country at national, zonal, regional, and district levels in land use planning. For that reason, in case of any issues relating to land use planning, one has to consult the Commission.

On the other hand it was commented that, the problem is lack of integrated planning rather than coordination. The plans in the different sectors are not integrated. Therefore, it important that the government should ensure that all the plans in the different sectors such as energy, land, forestry, agriculture are well integrated.

5.5 Pressure on Land

It was observed and commented that if we think of equitable land distribution, each Tanzanian has about a hectare of land. If we talk of livestock, we have more than 20 million livestock all over the country. We may think that we have plenty of land but in reality that is not the case. When we are reviewing land policy we should consider this reality. In the policy review it is important to take statistics into account. 65% of the land has severe deforestation, therefore urgent actions need to be taken to address the situation. Responding on this, it was observed that, Pressure on lands is not the same all over the country. There are places where the pressure is higher than in other areas. Whether we can support livestock with the land we have or not, this requires research. Though that could involve changing land uses from forest to other land uses or from other land uses to forest.

5.6 Role of TFS

It was commented that, though TFS has mandate to conserve the forests, demarcating and revenue collection, but the Agency has not been taking all the three roles into equal weight. Much of the focus has been on revenue collection. The remaining two areas are not sufficiently performed. Participants urged TFS to focus also in other roles.

6.0 PANEL DISCUSSION

Five Panelists who are experts in respective fields related to Biomass Energy took part in this Panel discussion on priority areas for changes in Policy and Practice in relation to enhancing the environmental sustainability, governance and energy security in relation to fuel wood and charcoals.

6.1 Estomih N. Sawe

Eng. Sawe is the Executive Director for TaTEDO with over 30 years experience in renewable energy and related policies, strategies, regulatory framework, programme implementation, monitoring and evaluation. He started the discussion by saying that a lot has been spoken since morning. He thinks priorities should include recommendations from the presentations and from the Minister's speech. This is good as way forward. Biomass has no policy. To have one should be priority number one. Also people should work together to harmonize various policies, and work towards common objectives.

The government should review the Biomass Energy Strategy so that it is able to contribute in the new and revised policies. It should be clear on how we contribute to sustainable use of biomass. How efficiently and sustainably are we producing charcoal. We must ensure there are very clear targets and indicators on efficient utilization of charcoal and fuel wood. As we are depending 90% on fire wood and charcoal for cooking, it is also important to come with energy substitutions-biomass energy substitutions and non biomass energy substitutions. Learning from other countries in Africa, for example Ethiopia and Ghana, they are using briquettes. They also use bamboo for charcoal production or for producing briquettes. They promote ethanol. It will be good to use experience from those countries. It is important that, the government allocates enough resources and build capacity for handling biomass issues.

6.2 Nurdin Chamuya

Nurdin Chamuya is the Principal Forest Officer with Tanzania Forest Services (TFS) responsible for Forest Resources Assessment. He has experience of over 30 years in forest Work. Mr Chamuya emphasized the need of working together. We need to link all what we are doing because we are serving the same people. NGOs and the government have to act as a mirror of the other. When government criticizes NGOs, they have to take it positive and vice versa. We should remember that we are part and parcel of our people. So our policies need to reflect on that diversity. Do we think of the rural people when we are developing our policies? Policies need to be research based. Forest harvesting should be done in forests that have harvesting plans. TFS has started implementing that, all forests that do not have management plans and are under TFS jurisdiction will not be harvested. He urged foresters to abide to their profession and work ethically.

6.3 Charles Meshack

Mr Meshack is the Executive Director of TFCG since 2005. He has Forestry background as well as Ecology and Environment. For over 15 years, Meshack has been advocating for participatory forest management as well as for natural forest protection in Tanzania.

In his points of discussions he stated that one of the most important element which has not been sufficiently addressed in the Energy Policy is biomass. Biomass needs to be clearly stated in the Energy Policy. The biomass strategy needs to be sufficiently anchored in the Policy. Energy demand will increase as the population grows. As a result capacity to negotiate or trade off will be difficult in the future. Certainly, forests will be cleared for energy and food. It is important to take that into consideration. In the supply side there are other competing land uses such as agriculture. By 2030, nobody should die by hunger. But where is the food going to come from. By converting forests

into agricultural lands. No body is talking about family planning. How do we integrate the different sectors when we are planning to avoid the possibility of our plans conflicting each other? It is important to ensure that the trades off are discussed. We also need to make sure that we have a Biomass Policy to address this challenge.

6.4 Roy Brown Namgera

Roy Namgera works with WWF Tanzania Country Office as Energy and Extractives Programme Lead. He has 12 years experience in Governance, Mining and Exploration. He reminded participants on the need to accept the situation that, biomass has not been given enough weight. Much of the country focus is on gas and electricity. We need to enact a biomass policy that will address this issue. We need to harmonize our policies. The Ministry of Minerals and Energy gave concession to mine uranium in Selous Game Reserve but the same government is protecting that area as World heritage. This is something which is confusing. Also we need to put a biomass energy plan. When we talk of biomass policy we should also talk of biomass plan. We need to embark in our undertaking to make biomass more productive and useful. It is important to invest more in the technologies/innovations to put energy more efficient, for example use of solid waste-in producing energy.



6.5 Bariki K. Kaale

Bariki Kaale is an Energy and Environment specialist with background in Forestry and Energy Planning. He is the SADC Regional Advisor as well as World Bank Energy Technical Advisor. He was part of the Team of UN RIO 20 Think Tank. Kaale's discussion went on as follows:-

In terms of policies, all the policies acknowledge the need for sustainable management. However when it comes to the implementation, very little is done. Energy for survival account to 90% of the energy share. Energy for development accounts for less than 10%. For the last 50 years, the main focus has been on electricity with only little emphasis on biomass. We need integrated energy plan,

if you take one out of them you are in trouble. Hydropower has a huge potential to contribute in the energy portfolio of our country. However, local environmental degradation is affecting that potential, apart from climate change. How can you move from poverty to good life? Using our natural resources is a unique opportunity to move faster from that line of poverty to good life. It is important to have integrated energy policy that would help us use our resources more efficiently and effectively. We have a lot of literature from 1970's, but we have not taken remedial measures to address the situation. The governments is not managing forest reserves properly. Therefore the government should return them to the villages. It is important to consider integrated approaches in developing the charcoal sector. We need actions and we should start now.

6.6 Contributions from the floor

Several contributions were received from the participants. These included the following:-

- In the World that is growing we cannot avoid using our natural resources. Our resources should contribute to the country's economy. We have to device technologies that can allow us to use the resources sustainably. Citing example of mining concession in Selous game reserve, it was pointed out that, we need to find ways of using those resources and should be used in a sustainable way. Before issuing the mining concession in Selous the government had to consult the World Heritage body and stated how we are going to do the mining without affecting the site. They had to remove that small part of the Selous out of the heritage so that we could do the mining instead of choosing not to use the resource. It was a good option to issue the concession to mine uranium in the area.
- In the energy sector there is no good linkage between national level and local level. For example, at the district level the government has not employed people in the energy sector as in the other government sectors. Policy implementation requires people at the level of the district but are not there. Therefore, having strong linkage between national level and local level is important for effective policy implementation.
- A question was raised whether one could have timber harvesting license that is also allowing license holder to produce charcoal. In response it was clarified that, when you obtain a harvesting license for timber you pay for the whole tree. So it is possible to use the remaining wood to produce charcoal. You need to put that in the harvesting license. When applying for harvesting license, you can also state that the off-cuts will be used for producing charcoal.

7.0 CLOSING REMARKS AND VOTE OF THANKS

7.1 Members of Parliament

Three Members of Parliament who are so Chair in their respective Parliamentary Committee made Closing Remarks towards the end of the Workshop.



Honourable Dotto Biteko, who is the Chair of the Parliamentary Committee on Energy and Minerals pointed out that, in the Government, there is lack of harmonization of policies, regulations etc. Biomass energy needs more attention from the Government and from other stakeholders. It needs to be well integrated in the Policy and Government plans. Charcoal has been branded negatively. For example, when environmentalists hear about charcoal they perceive it negatively. He cited the example of the Regional Commissioner for Shinyanga who banned charcoal supply in the region and ordered people to use LPGs. We can't ignore the realities on the ground. Charcoal and firewood are important and affordable sources of energy for our people.

Honourable Dr. Dalali Kafumu, Chair of the Parliamentary Committee on Trade, Industry and Environment cautioned stakeholders that Tanzania cannot stop the use of resources in the expense of environment. We need to devise ways of using the resources sustainably. The Project in Kilosa is important as it provides alternative ways of using our resources sustainably. Having specific charcoal policy is paramount and we need to encourage Government to consider having a separate policy on biomass energy.

Finally, the Chairman of the Parliamentary Committee on Lands, Natural Resources and Tourism, Honourable Eng. Atashasta J. Nditiye, remarked by giving a thank you note to TFCG, TaTEDO and MJUMITA for organizing the Workshop. Transforming Tanzania Charcoal sector issue is of importance. We have to put statements that can acknowledge the importance of charcoal. We need charcoal. Therefore it is very important to put it in the system so that the government can get revenues and people can get income. There is a lack of integration. It is important to avoid contradictions among the different government institutions. We will take that forward as members of Parliament.

7.2 Swiss Development Cooperation

The Representative of the Swiss Agency for Development and Cooperation, Clara Melchior thanked the participants for the active participation in the workshop. She acknowledged the presence of Minister of State, Union Affairs and Environment, the Chair persons from the Parliamentary Committees and stakeholders from the Government and other institutions, and representatives from UN agencies. During this year, Switzerland is making 50 years of diplomatic relations with Tanzania and whatever they do is aligned to the National policies, country strategies and programs. There is a long way to go to reach lower biomass energy level despite other energy sources such as gas and electricity. We all experience the impact on climate change. Our actions also contribute to climate change. Charcoal is not a standalone thing. It includes issues such as land tenure, conservation etc. TTCS is a significant initiatives. We need to support it. Switzerland efforts started in 2012. This was not the beginning. There were other efforts taken earlier by Switzerland in contributing to the improvement of the energy sector. Ongoing policy reviews are taking place in fragmented way. We have come to the right time. We hope the deliberations will be synthesized and help to bring about the policy change.

7.3 Vote of thanks

Charles Meshack thanked participants for active participation. He indicated that there is a positive change in terms of attitude, including among politicians. There are ongoing policy reviews and he would request members of the Parliament to help in making sure that biomass is included in the ongoing policy reviews. Biomass needs to be anchored somewhere and he is expecting that members of the parliament who took part in the meeting will advocate for that change. He thanked all the participants for attending, and the government of Switzerland for supporting this initiative. Meshack also thanked the facilitator for good facilitation and for keeping the discussions on the right track during the entire time of the workshop. He also thanked the media for being part of the workshop.

8.0 WORKSHOP EVALUATION

At the end of the Workshop, an evaluation of the organization and arrangements of the Workshop was done by participants by marking a special form appearing as an annex to this Report. 60% of the participants completed the evaluation forms marking a set of ten main questions related to information provision prior to the workshop, management, quality of presentations and assessment of the success of the workshop in meeting its objectives.

The overall assessment of the Workshop was good with an average score of 4.1 out of a highest rate of 5.0 A detailed breakdown of the scores is given in the table below:-

No	Questions	Score 1 = Low; 5 = High	
1	Knowledge on the subject matter		4.0
2	Do you use charcoal Yes 32 No 3		
3	Relevancy of workshop in Tanzania Society		4.5
4	How would you rate the quantity of information provided prior to arrival at the workshop		4.0
5	How would you rate the quality of the documentation that fed into the review workshop		4.0
6	Rate each of the presentations a) Welcome remarks b) Keynote speech c) Policy development and plans d) Panel Discussion	4.2 4.2 4.0 4.3	4.1
7	Plenary Discussion		4.1
8	Rate the quality of moderation and facilitation		4.2
9	Rate the quality of venue and services		4.2
10	Overall, how successful was the workshop in meeting its objectives		4.3

9.0 WAY FORWARD

While the Workshop sessions were going on, participants were requested to write comments and statements which would be expressing their opinions and wishes of what ought to be done to put issues right and reflect next steps. These statements have been put into various groupings without being edited.

9.1 Policy and regulations

- Enact a policy on biomass energy
- Harmonization of policies, laws and regulations that contradict the charcoal sector
- Harmonization of policies-government acceptance of charcoal as energy source that can revolutionize the economy considering that 80% of people use it.
- Policies must be put into actions
- Policies should be put into actions; commitment is key
- Facilitate technical meeting to harmonize policies
- Facilitate process of formalizing policies timely
- Review the energy policy to recognize sustainable charcoal production
- The revised land policy statement must include condition of not dividing villages with VLUP till it expires
- We need regulations at all levels of production, marketing and use of charcoal.

9.2 Community involvement and training

- Bring on board community leaders in the issue of sustainable charcoal production
- Awareness to the community about biomass energy in every district.
- Mkaa uvunwe kwa kuzingatia elimu ya mkaa endelevu na jamii ipatiwe elimu hii.
- Villager should be trained on how to implement the project at their forests
- Indulge in massive education on sustainable exploitation and use of charcoal/firewood
- Promoting forest management through education among the stakeholders especially village level.

9.3 Appropriate Planning

- Land use planning should be carried out carefully especially demarcation of land to specific use
- Proper Government integrated planning
- Every district must have strategic plan of forest conservation-planting trees every year.
- Initiate integrated energy planning covering all sources of energy
- Any forest harvesting should be done as per management plan

9.4 Research and technologies

- Emphasis must be put on the use of improved kilns for all charcoal producers including improves stoves
- Formulate models for sustainable charcoal production for natural forests, woodlands and individual woodlots

- Natural regeneration by coppice should be discouraged because not all trees will coppice; and before transfer the model into other areas, a 24 years research for an expected rotation age should be realized.
- Research on tree species suitable for charcoal making and do environmental planning on natural regeneration areas
- Integrated use of forest product. Use same trees for timber and charcoal production

10.0 CONCLUSION

The main objective of the workshop was to enhance stakeholders understanding of changes in policy in energy, forest, land and environment in relation to charcoal and fuel wood. The Workshop also aimed at breaking the policy silence on measures to enhance energy security. All these objectives were successfully fulfilled in this one day Workshop. The quality and level of delivery at the Workshop was extremely high. Nearly all participants were conversant with the purpose of the Workshop and all stakeholders were clear on what was to be achieved in the Workshop. All participants felt the need of having a policy on biomass energy.