CENTRE FOR ENVIRONMENT JUSTICE



Youth Forest Indaba Report

Theme: "Youth Building A Resilient Future with Forests"



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1 INTRODUCTION

The Center for Environment Justice (CEJ) in partnership with American Embassy-Zambia and Zambia United State Exchange Programme are implementing the Stop the Chop Campaign Initiative. Therefore, this report outlines the proceedings and outcomes of the Youth Forest Indaba (YFI). This Conference was a one-day event held on 26th September, 2022 at Mulungushi International Conference Centre in Lusaka Zambia. The indaba was held by The Centre for Environment Justice (CEJ) with the support from American Embassy and Zambia United States Exchange Association in collaboration with Ministry of Green Economy and Environment.

2 BACKGROUND OF THE YOUTH FOREST INDABA

The Centre for Environment Justice is Implementing a project called 'Stop the Chop Campaign Initiative with support from American Embassy and Zambia-United States Exchange Alumni Association whose primary goal is to reduce deforestation, forest degradation and help improve forest dependent communities through Sustainable Management.

The U.S. government remains a steadfast partner with Zambia's development in Environmental protection as well as wildlife conservation to be a priority to end deforestation. This is to ensure that the voices of the marginalized is amplified and help improve forest dependent livelihoods through sustainable management and impact development of policies affecting them to reduce policy and inequality.

The youth forest indaba was aimed at amplifying youth voices, identify youth role and developing intervention on possible actions in achieving the Glasgow declaration to end deforestation by 2030 and Environmental Protection dialogue resolutions with focus on environmental sustainability. The theme of the Youth Forest indaba "YOUTH BUIDING A GREEN AND RESILIENT FUTURE WITH FOREST."

3 INTRODUCTION, WELCOMING REMARKS AND SPEECHES

Among the resource persons included Mr. Freeman C. Mubanga, the head of Research for Centre for Environment Justice, who was the main moderator for the youth forest indaba. Mr. Mubanga welcomed the youth delegates, cooperating partners and government officials. Mr. Mubanga begun by inviting one of the Youth Environmental Defenders to offer an opening prayer, Mr. kaja gave the prayer. He thereafter led the participants in singing the National Anthem.

4 WELCOMING REMARKS AND SPEECHES

The official opening remarks of the youth forest indaba included welcoming remarks from Ms. Karen Bwalya-representative of the YED team, Ms. Maggie M. Mwape- CEJ executive director, Mr. Moses Nyirenda- programmes coordinator WWF and the guest of honour Mr. Austin Ngoma- cultural affairs specialist at the USA embassy.

5 REMARKS BY YOUTH ENVIRONMENTAL DEFENDER REPRESENTATIVE MS. KAREN BWALYA

Ms. Bwalya shared some welcoming remarks by highlighting the objectives of the Youth Forest Indaba and how it will benefit the young people in Zambia. She continued her speech by giving appreciation to all those who have been supporting the Youth Environmental Defenders (YED) programme since the inception. She also gave special thanks to Ms. Mwape and the CEJ management for the continued support to the network. She emphasized that Youth Environmental Defender network was aware about Glasgow declaration. She said "as the importance of forestry has already been recognized by 141 countries that signed the Glasgow Forest declaration in November of 2021, the rate of deforestation in Zambia which is estimated at 276, 000ha per year has become a primary concern in the environmental sector. Therefore, efforts in decreasing the rate of deforestation through initiatives such as youth forest indaba which is aimed at increasing public and political awareness in combating deforestation are welcomed."

6 REMARKS BY EXECUTIVE DIRECTOR Ms. MAGGIE MWAPE

Centre for Environmental Justice (CEJ), Executive Director Ms Mwape expressed appreciation for the opportunity to speak and acknowledged the presence of the guest of honour, Mr. Ngoma, Mr. Nyirenda, Government officials present and the other stakeholders in attendance as she observed all the protocols. She begun her speech by mentioning that the youth forest indaba which was under the theme "youths building a resilience future with forest" is under the stop the chop campaign project that is being implemented in Mafinga district in Muchinga province with support from the US government and the Zambia-USA exchange aluminous association with the overall goal to stop deforestation, reduce degradation and promote sustainable livelihoods through sustainable management. She extended her appreciation to the partners for awarding the grant and the confident shown so far to the team.

Ms. Mwape further explained on the forest cover of Zambia and she said that "Zambia has a forest cover estimated to be about 45.9 million ha representing about 61.4% of the total land area. However, the deforestation rate is estimated at 276 thousand ha per year of the forest lost. It is estimated that 64.81% was attributed to agriculture, 32.1% was attributed to Urban areas and unplanned settlements, the rest mining and other activities. Furthermore, the forests in

Zambia provide about 80% of energy for various uses." From this information she noted that it is not too late for everyone to realise the urgency of protecting the forest and the role that young people can play to achieve this goal.

Due to high levels of unemployment, Ms Mwape recommended to the new dawn government to consider the creation of green jobs at the centre of its priorities. Additionally, there should be a stronger connection between the education sector and the sectors responsible for environmental resource governance while the creation of the green job agenda should be at the heart of the economic transformation. She further mentioned that one of the barriers that hinders the green growth agenda progress is the lack of incentives targeted towards young people, minimal government interventions, and lack of trainings. Some of the ways in which government can move young people out of poverty is through the support of community forest management groups and the promotion of non-forestry timber products which increases the value chains for young people. She gave examples of the honey value addition and that government should consider empowering youths in this sector and provide scholarships and certifications for young people to be trained in different sustainable economic activities and in forest protection management.

Ms. Mwape concluded her speech by noting that our forestry particularly the Miyombo, Mukula, Mubanga among others are endangered species because of economic activities and the initiative of stop the chop will help reduce the level of deforestation and it will provide sustainable economic livelihood alternatives for those whose economic sources will be affected by this project.

Mr. Mubanga added on what the executive director mentioned on youths taking up opportunities in the green economic sector such as honey production and not just focusing on other sectors such as mining. He mentioned that there is need to develop skills on production and the marketing of these green economic products even to the international world.

7 REMARKS BY WILDLIFE PROGRAMMES MANAGER WWF ZCO MR. MOSES NYIRENDA

Mr. Nyirenda recognised the presence of the guest of honour, the executive director of CEJ and all the youth representatives present from all over the country. He thanked CEJ for organising the youth indaba which follows an earlier indaba organised by WWF on forest and in particular charcoal production in the country. He further mentioned that as WWF they notice and believe that youths are the reservoirs of key innovative solutions for today and tomorrow. He also highlighted the challenges and opportunities that has been provided for them to be able to access information on forests in Zambia.

Mr. Nyirenda went ahead in his speech by speaking about some of the problems that are affecting the forests such as agriculture, energy, population growth and mining expansions. He said that he believes that the youths have the solution to all these problems and the youths can take up the role to lobby government to implement more sustainable energy sources in both the

rural and urban areas. The youths can also take up part of the vacuum by providing innovative ideas and developing business for cooking solutions that use less energy for example solar cooking solutions. He also echoed the comment raised by the executive director on non-timber forest products in that youths can produce drinks, honey for cosmetic business (skincare), candle production from wax of which the products can be exported. He then concluded his remarks by encouraging youths to participate in the initiatives that encourage conservation of forests and that there is need for markets for these products to be created at a rate that is sustainable both to the environment and to the human race putting into account the population growth.

8 REMARKS BY THE GUEST OF HONOUR, MR AUSTIN NGOMA – US EMBASSY CULTURAL AFFAIRS SPECIALIST

Mr. Ngoma begun by recognizing the presence of government officials present, civil society leaders, youth environmental defenders and the youth leaders.

He went on to congratulated CEJ for launching the stop the chop. He said; "on behalf of the USA Embassy, I would like to congratulate the CEJ for launching the stop the chop campaign." The stop the chop project is aimed at reducing deforestation, degradation and stop the illegal timber trade in Zambia. He highlighted that the project will raise awareness about sustainable economic management by engaging tradition leaders, community member, youths and other stakeholders.

He mentioned that; the stop the chop project stood out at the alumnae engagement innovation funding and out of over 5000 applications globally, the stop the chop was among the 73-project proposal that received funding globally and it is among the 3 projects that the USA Government has funded here in Zambia. In his words he said "the stop the chop is indeed a serious project and it aims to address serious issues within our country".

Mr. Ngoma congratulated CEJ and in particular the Executive director who is also a 2019 Mandela Washington fellow for her vision and for putting Zambia on the map and the USA government is happy to work with Zambia to promote environmental protection as well as economic development. He urged the Zambia people, the youths and everyone to enhance the natural beauty of Zambia and that the participation of the youths in the indaba is important as most innovative ideas come from youths. He said; Zambia is threated by deforestation therefore it is important that we preserve the forest for their important role on earth hence conserving our forest and planting trees is an investment and a sign of optimism that will bare fruits in the future.

He concluded by commending that the stop the chop is doing the Lord's work in terms of preserving the environment and officially launched the youth forest indaba.

9 INDABA PROCEEDINGS

9.1. Expectations

- 1. To advise, revise and engage other government bodies like the Ministry of Small and Medium Enterprises as well as the local government in order to go further in attaining our goal in preserving the forests.
- 2. To leave the youth forest indaba with the solutions on the right ways to educate the rural communities in combating deforestation.
- 3. To have the opportunity to get general view on the country's forest status and find out how youths can be of help in providing the solution.

9.2. Presentation on Glasgow Declaration and Epd2021 Forest Resolution

Mr. Mubanga pointed out that initiatives such as youth forest indaba, Environmental protection dialogue (EPD)2021, COP26 and the WWF forest indaba all have had the component of forest conservation and land scape restoration. He said, the concept of forest conservation and landscape restoration isn't new it has been in existence for a long time. There should be a balance between forest conservation and the livelihood of people." He also mentioned that at global level forestry research is an important aspect that involve huge amounts of money in order for the research to be conducted.

9.2.1. Understanding the Glasgow Leader's Declaration on Forests and Land Use

Mr. Mubanga stated that the pronouncing of the declaration was exciting for most people and that it was considered as the highlight of the COP26 by the media. He also showed a picture of the 145 world leaders who signed this declaration which is a commitment and that 19.95% of the forest cover globally is now under the declaration and in terms of hectares there is 3.6 billion hectares of land is committed under the declaration.

9.2.2. Why the Declaration?

Mr. Mubanga mentioned that the declaration is not the first of its kind and significance of the Glasgow COP in bringing focus to the critical role of forests, nature and land not only for tackling the climate crisis but also for helping improve human resilience -cannot be overstated,", therefore have been other similar policies in the previous past that did not meet the intended objectives.

9.2.3. Key Clauses from the Declaration

Mr. Mubanga further explained some of the key clauses from the declaration that the countries who have signed this declaration have decided to be committed to. These include:

1. The emphasis of critical and interdependent role of forests of all types, biodiversity and sustainable land use in terms of the limiting factor which also has an impact on the forest, ecosystems and land use. This means that there is need of restructuring the old systems of managing land use and finding transformative ideals both globally and internationally.

2. The declaration also reaffirms the respective commitments, collective and individual commitments to the UNFCCC and the Paris agreement. He explained that the declaration does not remove the already existing policies but recommits them.

9.2.4. Commitments

Mr. Mubanga mentioned that one of the commitments is to reduce vulnerability, build resilience and enhance rural livelihoods, including through empowering communities, the development of profitable, sustainable agriculture, and recognition of the multiple values of forests, while recognizing the rights of Indigenous Peoples, as well as local communities, He added that it is very important and is the reason why the declaration will be made effective. This is because of the inclusion of enhanced rural livelihoods and facilitate the channels of financial flows. He further explained that there is a need to facilitate trade and development policies, at international and domestic, that sees sustainable development, and sustainable commodity production and consumption, that work to countries' mutual benefit, and that do not drive deforestation and land degradation and he added that the international cooperation need to Conserve forests and other terrestrial ecosystems and accelerate their restoration

9.2.5. Analysing the Bottlenecks of the Declaration

Mr. Mubanga noted that the declaration being a non-law-abiding declaration has bottlenecks that include:

- 1. The declaration lacks the monitoring and evaluation mechanism tools.
- 2. The declaration lacks the sense of urgency which means that the need to protect the forest is treated as a voluntary aspect and not an urgent matter.
- 3. There is a lack of detailed plan on how these commitments will be implemented.

9.3. Environmental protection dialogue resolutions

Mr. Mubanga shared the presentation about the resolution at the EPD2021 which included the need to build capacity for national forest assessment, integrate sustainable forest management objectives, improve forest research and improve livelihoods of the people. He explained that the commitments from the EPD 2021 in October and the Glasgow declaration in November, 2021 both show that they have the same commitments and prove that there should be a sense of urgency that these commitments should be treated with in order to achieve the overall goal.

9.3.1. Insights for Actions

Mr. Mubanga concluded his presentation by talking about the insights for actions that are needed in order for the overall goal to be attained. He said that there is need for youth support in the fight for environmental protection and lastly there is need for resources both globally and locally.

9.4. Expert presentations on Forest and Environmental Policy, Law and Regulations

9.4.1. The Role of Youths in Achieving Forest Conservation by Mr. Moses Nyirenda, Wildlife Program Manager at WWF ZCO

Mr. Nyirenda began his presentation by saying that "Zambia has a number of protected areas namely national parks, game management areas and there are 500 plus reserves proclaimed in Zambia. One of the reasons for this, is due to the need of protecting some underground reserves and resources depending on the type of trees and soil in that particular area. These minerals are reserved for the future." Secondly, he pointed out the need to protect sources of water called water recharge area. He showed a map that have water recharge areas which included the Luangwa River, Zambezi River areas, Luapula river areas, Chambishi river area and the Kafue River area. He also talked about the importance of these river sources such as the Zambezi, Luangwa etc. that have been declared forest reserves. Mr. Nyirenda also added on to say that some forest reserves have unique tree species such as the Miyombo woodlands, mopani woodlands, and the Kalahari type of forests etc.

Mr. Nyirenda also spoke about the threats that these forest reserves face. He showed a picture of a forest reserve on the copper belt province in the year 2000 and compared its current state of over a period of 20 years, there has been a change of about 10 to 15%. Most of the areas have been converted to farm land and other uses. This has further affected the surrounding rivers which have since dried up.

Mr. Nyirenda then urged the youths to note the rapid change that is taking place in these 500 plus forest reserves. He noted that all age groups including youths are partaking in the destruction of these forest reserves due to lack of better opportunities, however this should not be the case. The NDCs should be converted into bankable projects that will see to it that opportunities are provided for the youths and the youths should take up the lead by participating in governance and various projects that add value to our forests.

9.4.2. Understanding Forestry Legal Framework by Makweti Sishekanu, Environmental Legal Expert and Lecture at the University of Zambia

Mr. Makweti Sishekanu begun his presentation by making mention that the presentation will be based on the Glasgow leader's declaration but in the Zambian context by going behind the declaration. He also mentioned that the answer to the role of the youths will be answered among the youths because they have the right answers towards that.

Mr. Sishekanu mentioned that the Glasgow declaration is not a law but an intention for leaders to do something about protecting the forests. In his words he said "No country will be found wanting for not being committed to the declaration and the rationale for signing this declaration is to accelerate conservation and restore forests, facilitate trade among themselves as countries, reduce vulnerability, build resilience, develop rural livelihoods of local people in the forests, reaffirm international financial commitments and facilitate the alignment of financial flows with international goals to reverse forest loss and degradation".

9.4.2.1. Comparative review of the Glasgow declaration and the national forest policy of 2014

Mr. Sishekanu in his presentation highlighted that the Glasgow declaration can only work through the current policy acts that are readily available like the national forest policy of 2014. He used the example of a passenger and a bus which meant that the Glasgow declaration is just a passenger which the national forest policy is the bus which carries the declaration into the Zambian system.

He then compared the two policies that discovered that the principle of interdependency, the principle of corporation, the principle of transformative action is all represented in the national forest policy of 2014 despite that some of these principles like the transformative action principle is not being implemented in Zambia.

Under the principle of targeted approach, Mr. Sishekanu talked of the importance of having targets, which he then paused the following questions to the audience:

- 1. If Zambia is losing approximately 276,000 ha of forest per year, how many hectares of forests should be saved per year by the year 2030?
- 2. How many hectares of degraded forests should be reforested per year by 2030?
- 3. How many tree seedlings should be produced by 2030?
- 4. By how much tonnage should the total national forest carbon increase per year by the year 2030?
- 5. How many communities' forests should be legally registered and registered by 2030?

However, Mr. Sishekanu noted that "there is no way of measuring the progress of the declaration or of the forest act. This can be highly attributed to the lack of capacity of the forest department to implement the policies and legal mandate." He recommended that the forest department should be an independent body and not part of the ministry. The forestry department should be an independent body like ZEMA though this was tried under the forestry act of 1999 that was not implemented due to the political aspects. To end his presentation, he called on Mr. Zulu who was amongst the youths to explain the role of the youths and the solution to the problem on how we can track the progress of policies in Zambia.

Mr. Zulu who is the CEO of ECO CUBE technologies pointed out that there is lack of technology in the implementations of forestry and environmental policies. He quoted how other countries have used technology to monitor forest development and also in reforestation through the use of drowns. He pointed out that one of the major reasons why the embracement of technology is feared is because of the fear of technology replacing many jobs and cause unemployment.

9.4.2.2. Question and Answer Session

The moderator, Mr. Mubanga opened and moderated the question-and-answer session between the participants and the presenters.

Question one: how can young people work together through technology to provide research with accurate data needed to fight deforestation?

Answer: Mr. Zulu answered that there is no community of young people that work together to tackle deforestation and once we realised that we are fighting the same problem, then we can corporate and work together.

Question two: How simple is the proposed eco cube technology projects for use by people in rural areas?

Answer: Mr. Zulu answered that the app is user friendly and simple to use. The app also has other aspects such as tracking of waste management and disposals. He also commended that Zambia can adopt the strategy that developed countries have implemented which is the use of tree trackers to help reduce the cutting and illegal trade. He also made mention that with the President's announcement on the provision of star link to Zambia, the app will have access to reach out to everyone due to improved and faster speed network.

Question three: How best is the current tracking system seeing to it that we still keep losing our forest without any proper records?

Answer: Mr Zulu also answered this question and he said there is no efficient tracking system and the implementation of technology can be the solution but the loss of jobs is the largest threat to the Zambian system.

Question four: The declaration has highlighted the livelihood of the people as a priority. Are there any strategies or plans in the stop the chop campaign to ensure that the local people especially charcoal burners have a source of income?

Answer: Ms. Mwape answered this question and said that it is important for us to provide alternative livelihood solutions to the people in rural areas. Such alternatives include introducing them to agroforestry, honey and sunflower production. CEJ is also trying to implement these solutions in Zambezi where CEJ has been given land to practice forest conservation. She also commended that technology is important in achieving this agenda and that the government's pronunciations towards environmental protection is remarkable but it is important that these pronunciations are implemented.

Question five: What are the practical interventions for the declaration given that there only eight years remaining?

Answer: Mr. Makweti answered this question and he said that there are many projects in Zambia that are aiming to protect the forest however they all lack transformative change. The projects and programs do not translate into changing the lives of people.

Mr. mubanga added on to answer this question by highlighting some of the points from the previous forest indaba and he said that its indeed true that there are so many organisations working towards forest conservation but one of the challenges that most of them face is lack

of finances. The forest department had the research department and forest ranchers in the past but now there are laps in the forest department especially in the flow of finances that can help to improve the implementation of forest conservation activities. He also pointed out the need for forest expertise and the issue that most people consider forest related courses to be secondary courses when selecting their university options.

Question six: Since countries are not held accountable to the declaration. What measures does the declaration seek to implement in order for the declaration to be successful?

Answer: Mr. Makweti answered saying that the declaration is used by countries to attract attention and finances and as a means of influencing already existing policies. For example, the targeted approach is not part of the 2019 Zambian forest policy but it is being incorporated through the declaration.

Question seven: Among the countries that have signed the declaration the majority are the developed countries and only 24 African countries, don't you think this declaration is just for the developed countries and are just trying to cover up for their mistakes. Also, what incentives do African counties have for them to participate in this?

Answer: Mr. mubanga answered this question and said it is our responsibility as Africans to protect our environment and we do not need to wait for an incentive from the developed countries in order for us to protect what is ours. However, the declaration gives the developing countries an opportunity to raise financial funds and be internationally recognised.

Question eight: What happens to those individuals who are unable to go through the transformative action because clearly not everyone in society can be transformed. What are the government alternatives to this problem?

Answer: Mr. Makweti said transformative change is not as simple as it sounds because it changes people's culture and violates their values and rights. Transformation change gives people alternatives that will not change their lifestyle for example fishermen can be given an alternative of fish farming. He also acknowledged that most communities know about the risks that the environment is facing, the biggest problem is the lack of finances to divert into sustainable practices. Therefore, it is important not to impose solutions on them but rather give them a choice to determine the best solution depending on the area.

Question nine: What are CSO in particular CEJ and government doing to be on the ground to get alternative livelihood ideas from the rural people in communities?

Answer: Ms. Mwape took up this question and she said that CEJ's work is implemented in rural areas and activities done in Lusaka are mostly on policy engagements or meeting because of the centrality of the area.

Question nine: Is there any law or policy that supports traditional leaders' engagement with the ministry of green economy towards working together in fight against climate change?

Answer: Ms. Mwape answered saying that over 60% of customary land is owned by traditional leaders and CEJ works hand in hand with the traditional leaders in dialogues in order for them to make their intentions known. She also mentioned that during the EPDs, traditional leaders attend and make their submissions.

Question ten: How can youths who have innovative ideas be integrated by CEJ or government by helping them with funds or exposure to market their innovation?

Answer: Ms. Mwape answered and said youths are given an opportunity by CEJ to exhibit at the EDPs and even at the indaba as will be seen in the next session, youths will be showcasing their innovations.

Question eleven: Has there been any intervention that has been done to support the forest department either from the CSOs or from the government?

Answer: Mr. Sishekanu responded and said the problem is with the crippled forestry department. Otherwise, donors are losing hope to continue donating money to the department due to its inefficiency. The solution is for the forest department to be able to efficiently be sustainable and not to be controlled by the ministry.

9.5. Youth Green-Tech Innovation Presentations

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Gabriel Mukuka Is a Final Year Mechanical Engineering Student at The University of Zambia
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Mr. Mukuka showcased a pyrolysis machine which has two main parts namely: bio digester and pyrolysis machine. The bio digester converts biodegradable wastes like rotten tomatoes, left over foods etc. into methane gas which is used to power the machine with the help of a bio generator. The second part is the pyrolysis machine which converts non degradable hydrocarbon like plastics into useful products like petrol, diesel and char. Further, the Char can be used to make charcoal briquettes to replace charcoal from trees. He stated that his innovation is a green innovation and everything is done in a process that does not pollute the environment in any way. He went on to explain his second innovation which is a wind turbine that has five blades and works under Zambia's lowest wind speed of 4m/s. This is targeted to help rural areas with that wind speed to have power and generates energy without having any effect to the environment. However, he mentioned that he is still operating at a small scale because of lack of funds needed to industrialize it and upscale his innovation to help rural areas.

- Chanda Elina is an Agrologistic and a Teacher of Agricultural science in Kabwe District

Ms. Chanda showcased her innovation called *Elichi Green Charcoal Enterprise* with the goal to create a green Zambia. The innovation produces two different types of green charcoal which includes the fire blocks for heating broiler chickens that last for 3 to 4 hours and green charcoal for cooking that lasts for 4 to 8 hours. Ms. Chanda mentioned that she works to add value to the Agro and forest waste such as groundnuts shells and maize waste among other things. She has also developed voice messages in the local language (bemba) to increase awareness on stopping the chopping down of trees. Her project is based in Kabwe and so far, she mentioned that she has managed to raise finances for her innovation however that is not enough as she is

still facing challenges such as the lack of machinery, plants for the green charcoal production and transportation.

- Onijah Zani is an Innovator of Drones and The Founder of Prehepa

Mr. Zani's innovation is called PREHEPA which refers to pollution, recycling, education, health, employment, poverty and Art. He explained that it consists of making aircraft models (DRONES) out of pollutants. The body composition of the drone is fully from the pollutants while some systems inside parts are outsourced. His aim is to make drones within Zambia that will help in offering mapping services that will help to solve problems faced in the environmental sector such as the lack of tracking systems when it comes to wildlife management or forestry management. He further explained that this innovation can also help to monitor the water flows and systems around various areas. He has also taken it upon himself to teach other youths about crafting planes using trash.

- Lackson Phiri is a Human Rights Advocate and member of the Youth for climate Justice

Mr. Phiri's project is called ABC-123 which seeks to drive a human based transformative approach by basically adding at least one green habit to the daily lives of people through creative environmental awareness and extensive management. He demonstrated his creative ability in which he uses to deliver the information to people. However, he stated that lack of funds is a barrier to the effective implementation of the initiative because the project is in different stages that comprises several activities such as tree planting, training programs, community and school awareness events etc.

- James Nsofwa is a Graduate with Bachelor's Degree and Master's Degree in Renewable Energy

Mr. Nsofwa's innovation is the production of ethanol using cassava. The company is able to produce ethanol from cassava that could be used for various needs. The ethanol is cheaper than most renewable energies that have been implemented. The innovation is also a solution to encourage people to diversify their agriculture from cultivating maize only to cultivating cassava as well. The company is able to enlist cassava growers at a larger scale and also be the main off takers.

9.6. Youth Environmental Defenders Panel: Youth Action for Climate Empowerment.

Ms. Mwape welcomed everyone to this session and then invited the panelists who are youth environmental defenders and they presented their respective topics as follows:

Dalitso Mvula focused on Education

Ms. Mvula greeted everyone and possessed an important question on what the youth environmental defenders have done after the youth environmental defenders training that was held in September? She told the audience that the actions need not to be technical but even just spreading the news about environmental justice is an important action that any youth can take. Ms. Mvula then went ahead in her presentation to talk about the importance of climate education. She stated that the approach that is needed in environmental education should not be in form of classroom set ups only but it is important that environmental education is localised and at the same time include an increased level of research so as to make it easier for local people to understand and relate to it. She further talked about the multi-disciplinary and inter disciplinary approach. She said that the inter disciplinary approach is a better approach when it comes to environmental education because it incorporates other contents from other subject that form climate change and environmental education. For this reason, having an interdisciplinary approach by the year 2030 will be a very progressive move for Zambia.

- Gift Kaja focused on Trainings

Mr. Kaja begun his presentation by stating that "Action for climate change empowerment (A.C.E) is a term adopted by the United Nations Framework Convention on Climate Change (UNFCCC) that seeks to articulate work under article 6 of the convention (1992) and article 12 of the Paris agreement. In general, article 12 of the Paris agreement recognizes that improved climate change on training is one of the key elements in enhancing global action on climate change." He defined a training as a social program and collaborative process that includes undertaking of one or a series of courses with the purpose of enhancing performance, productivity, skills and knowledge. He stated that the importance of training can be attributed both at an individual or organisational level.

Mr. Kaja concluded by explaining some of the importance of training for the youths which included; the empowerment that trainings offer to the youths and the society at large through promoting changes in lifestyle, attitudes, and behaviours that are conducive to a low emission climate, resilient, and sustainable development. Secondly, trainings provide the ability and chance to obtain and interpret climate information, develop emission inventories, or identify climate compatible technologies. To sum it all up, he encouraged that youth and society participation in trainings is one way to scale up the level or rate at which climate actions can be implemented.

- Agness Kunda focused on Public Awareness

Ms. Kunda begun her presentation by giving a brief introduction on the public awareness component in relation to the ACE. She then defined public awareness as "a backbone or foundation for a change or formation of policies as it encourages the community to take action.". She mentioned that the youths have a privilege to attend events such as the indaba where they learn about environmental protection and climate change. Youths can be a great tool for information dissemination and hence it is important that from these meetings, the youths should be able to spread the word and increase public awareness. She gave an example of the stop the chop campaign as a project that will be effective in raising public awareness to the people in Mafinga district.

Ms. Kunda concluded her by stating that it is important for public awareness to be tailored down to the level that public can understand depending on the area. She gave different examples of ways in which public awareness can be raised such as social media and pop media in urban and rural areas respectively. It is therefore important that youths should participate in public awareness through minimal actions such as the use of social media in a positive way.

- Natasha Nanyangwe focused on Public Participation

Ms. Nanyangwe begun her presentation by stating that public participation explores to how different factors relate to the source of information. She stated that it is important for the youth environmental defenders to know how to increase their public participation in a right and local way for people in rural areas to get the concept from the message that they are disseminating. It is also important to have effective communication strategies that will make the people to care about the message on climate change without changing their culture. Ms. Nanyangwe stated that it is important to determine a proper system or policies that will help to encourage the people in rural areas for example people from her village which is Mpulungu in northern province to also participate in the publication of climate change and environmental protection information.

- Rachael Mulenga focused on Public Access to Information

Ms. Mulenga begun her presentation by defining what information is. She said "information is knowledge given or received." And the public access to information is one of the ways the United Nations intend to empower all members of society to engage in the fight against climate change. However, all the other factors are highly dependent on the level of public access to information. She noted that this is so because it is because of public access to information that everyone was able to receive the education they are receiving at the youth forest indaba. Public access to information therefore provides people with the tools and skills they need to play a more active role in society. Additionally, it promotes a sense of inclusion as most people are still able to follow online or through other platforms in environmental activities such as the stop the chop campaign. Ms. Mulenga further stated that public access to information uphold accountability which means stakeholders are able to hold leaders accountable when it comes to implementation of policies. It also encourages innovation among youths as it provides youths with knowledge and skills.

In conclusion, she noted that it is because of public access to information that the organisers, sponsors and the participants of the indaba were able to come together and learn from each other and she hoped that everyone will be able to disseminate the information afterwards.

- Blutus Mbambi Focused on International Cooperation

Mr. Mbambi begun his presentation by defining 'Action climate empowerment'. He said according to the UNFCCC and the Paris agreement, "ACE" involves tools that try to change the human behaviour through the six pillars of the framework. Hence the international corporation is trying to bring the government, the youths and other stakeholders to fight climate change in different channels in which everyone can access funding. He further went on to talk about the concept of loss and damage, he urged the youths to take interest and be able to participate in such environmental negotiations. He commended youths for taking part in matters like holding the government accountable for the implementation of policies such as the NDC reports and apart from that, young people should have practical innovations or works on the ground that can connect them to international opportunities such as opportunities to attend the UNFCCC COP meetings.

9.7. Breakaway Session: Developing the Youth Forest Action Paper

The master of ceremonies, Mr. Mubanga guided everyone on how they can form their groups in order for them to have break away session discussions on the question-*what are the possible intervention that youths can embark on in the protection of the environment*?

The following are the consolidated interventions that were raised by the youths:

- 1. Government must enlist more community member on the farmers input support programme. This will offset charcoal production because community member who have been producing charcoal as mean to acquire income to purchase farming inputs, will no longer be involved in charcoal production.
- 2. The forest department must work with traditional leaders in promoting forest conservation and ensure that charcoal license is revoked.
- 3. Government must ensure that the main road from Isoka to Mafinga is completed so that farmers can easily move their farm produce to the markets available in Isoka district.
- 4. Provision of water and irrigation schemes to facilitate diversified agricultural production.
- 5. Increase the number of farmers on the farmers input support programme.
- 6. Government must empower the small-scale famers by changing their agricultural production cycle using the available technology of solar water pumps for irrigation and provide guaranteed markets.
- 7. The forest department should supply small-scale farmers using chitemene farming systems with tree seedlings to replant in the abandoned fields.
- 8. Government should establish manufacturing and agricultural processing plants to provide employment opportunities for the local, thereby, refraining from charcoal as an alternative livelihood.
- 9. Establish a honey production project for the people involved in charcoal production as way to offset charcoal production.
- 10. Increase the number of small-scall farmer on the armers input support programme.

10. CLOSING REMARKS

Mr. Mubanga opened this session by calling on Mr. Sishekanu to share his closing remarks to the youths.

10.1. REMARKS BY MR. MAKWETI SISHEKANU

Mr. Sishekanu in his closing remarks talked about the presentations of the youth innovators during the green tech innovation session. He stated that innovators need to learn how to properly present and package their ideas. He said that technology is about two things; innovation and deployment, innovators should be focused more on explaining about the problem that their innovation is solving. He gave few points to consider:

1. Innovators must focus on the problem and the solutions which the innovation address.

- 2. Innovators must not compare the innovation to others as they should mind their own niche.
- 3. Innovation should solve a particular niche. For example, the drown technology can be focused on the wildlife.
- 4. Lastly, showcase and demonstrate how the innovation will perform so as to provide the solutions.

10.2. REMARKS BY CEJ-EXECUTIVE DIRECTOR, Ms. MAGGIE MAPALO MWAPE

Ms. Mwape begun her closing remarks by acknowledging the presence of the director at the ministry of green economy, Mr. E. Shitima, CEJ board member, Mr. Boniface Mumba, Mr. Sishekanu. She then went ahead to give special thanks to Mr. Shitima who has been able to provide technical support to CEJ since its inception. She then went ahead to emphasise the need for young people to lead in the fight against climate change. The youth unemployment rate in Zambia still remains at a high rate and it is one of the biggest economic challenges. Hence implementing the green job agenda should be at the centre of the new dawn government administration.

Ms. Mwape noted that one of the barriers is the lack of targeted incentives, hence there is need for creating opportunities such as the carbon trade market that should be led by young people. She said that effective environmental groups are vital in the creation of opportunities for young people however most young people especially those in rural areas lack capacity and the access to markets both locally and internationally. She however urged that she believed that young people are key to providing solutions to environmental problems.

Lastly, she thanked everyone who took time to participate in this event, the CEJ aboard, members of staff and cooperating partners for the continued support.

10.3. REMARKS BY MR. BONIFACE MUMBA - CEJ BOARD MEMBER

Mr. Mumba acknowledged the presence of Mr E. Shitima, director in the ministry of green economy and environment, other government officials present, CEJ team most especially the executive director for the hard work and lastly the youths for being consistent in their work.

He said that innovation is very important and as there is need to stop the chop, the alternatives that are to be provided should be sustainable. He also encouraged youths to equip themselves with information and use their power to call for accountability and track government performance. In conclusion, Mr. Mumba encouraged the youths not to give up even if they fall down several times.

10.4. REMARKS BY MR. E. SHITIMA- DIRECTOR CLIMATE CHANGE, MINISTRY OF GREEN ECONOMY & ENVIRONMENT

Mr. Shitima thanked everyone especially the executive director for the kind words. He also talked about his professional background where he said that he is passionate about forest conservation. He mentioned that the ministry has translated climate change education into seven different languages which will be given to the youths to go with as they travel back to their various provinces. He urged that it is important, if possible, to have youths attending the Forest Indaba to participate in the COP 27 if resources are available and government through the ministry of green economy and environment was more than willing to accredit them. He went on to deliver the speech on behalf the permanent secretary, Eng. John Msimuko which begun by appreciating the stop the stop campaign and how brilliant the initiative it is. P.S Msimuko noted that, it is saddening that deforestation has negatively impacted the integrity of forests in our country and the different causes of deforestation such as agriculture which accounts for up to 80% of forest loss. This subsequently led to one of the most urgent matters of our time which is climate change. For this reason, he urged the youth present to reflect and take an upper role in working toward forest conservation, preservation and protection.

In conclusion, he gave his appreciation to the centre for environment justice for the continued support in providing a platform for the youths to dialogue and for the continued collaboration that CEJ has with the ministry of green economy. Mr. Shitima officially closed the indaba at 17:30hrs. The director of ceremonies, Mr. Mubanga then directed the attendants for the procedure for their logistics and the closing prayer was given.