The Environment Magazine-UGANDA

Issue 2, September 2024

Editors Note

Greetings Readers,

We present to you the second edition of our June-August newsletter. From May to July, our sector has been eventful with major happenings such as International Biodiversity Day, Environment Day, Buganda Environment Week, the second sitting of the Environment Parliament, the Sustainability Awards, and the Run for Climate Change, among others. We have highlighted these events in this issue.

We would like to extend our heartfelt gratitude to all contributors. Your support is invaluable and greatly appreciated.

Finally, we call upon all stakeholders who believe in our cause to join us and help this initiative grow immensely.
Thank you and happy reading
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Okia Richard Regan
Editor-In-Chief

By Editorial

BE PART OF THE PLAN

International Day
for Biodiversity
2024

Be Part of the Plan

On May 22, 2024, the world celebrated International Biodiversity Day with a global call to action for everyone to "Be Part of the Plan." Nationally, Uganda's theme was "Land Restoration for Biodiversity Resilience," and the celebrations took place in the Sebei sub-region, specifically in Kapchorwa District at the Boma grounds.

In the days leading up to the event, efforts were made to restore one of the local rivers through bamboo planting and tree planting at the District Headquarters. These activities aimed to reduce siltation by stabilizing the riverbanks.

During the main event, the guest of honor, Hon. Aisha Sekindi, launched the Mountain Elgon Project on behalf of Cabinet Minister Hon. Sam Cheptoris, who was out of the country on official duties. Minister Sekindi emphasized the project's importance in raising awareness about integrating conservation with economic activities to improve incomes while protecting biodiversity.

Dr. Akankwasah Barirega the NEMA Executive director highlighted the significant ecosystem services provided by conserving biodiversity, including tourism, which enables people to earn incomes. "This day should remind us of our progress in conserving biodiversity," he remarked. He encouraged people to engage in agroforestry, incorporating indigenous and forest trees. He also stressed that humans cannot exist in a polluted environment.

Chebet Evelyne Kubarika, the Host LC V Chairperson, expressed concerns about illegal land settlements around Mountain Elgon National Park and the issue of Kwoti Forest, as well as the underfunding of district natural resource offices.

The event was graced by officials from the Uganda Biodiversity Fund, TotalEnergies, American Tower Company (ATC), and UNEP, who all contributed to the celebration and the ongoing efforts to protect biodiversity.

Government Pledges Enhanced Environmental Sustainability at Inaugural NEMA Awards.

Adopted from theugpost.com
By Sarah Biryomumaisho
Published on June 28, 2024

The Prime Minister has reaffirmed the Government's commitment to environmental management and livelihood enhancement for sustainable development.

This message was conveyed in a speech by Rt Hon Robinah Nabanja, delivered by the 3rd Deputy Prime Minister, Hon Rukia Nakadama, during the inaugural National Environment Sustainability Awards at the Sheraton Hotel, Kampala, on Friday evening. The awards, organized by the National Environment Management Authority (NEMA), recognized organizations, companies and entities with best practices in environmental sustainability.

The Prime Minister, who was the chief guest, noted that with 50% of Uganda's population now below 17 years, the environment will play a key role in shaping the sustainable development agenda in job creation, infrastructure development, climate change mitigation and adaptation, and providing food for over 45.9 million Ugandans.

"Uganda has been intentional about sustainability and has indeed invested in the critical drivers of sustainability, namely infrastructure development, especially in energy, transport, and information & communication technology, industrialization and value addition, human resource development, and improving access and increasing participation of the private sector. These have all been mainstreamed in Uganda's national development plan and remain critical in the NDP4, where the environment is at the center stage: Sustainable industrialization for inclusive growth, employment, and wealth creation," said the Prime Minister.

She applauded the management of NEMA for the innovation to publicly recognize and award those making a difference in environmental management, adding that while the awards are not a definitive measure of environmental performance, they serve as a valuable form of recognition akin to an endorsement or label of excellence.

To the awardees, the Prime Minister encouraged them to continue their good work. "Ladies and gentlemen, let us remember that protecting the environment and mother nature is our God-given responsibility. Therefore, let us all be inspired by tonight's awardees and commit to taking actionable steps towards a more sustainable future."

The Keynote Speaker, Mr. Japheth Kato, appealed for more support in the form of funding for projects that NEMA is carrying out. "We need to support NEMA as an agent of change. They need both political support and money." He urged all Ugandans to join and further the journey of sustainability, knowing that every step taken brings the country closer to a sustainable Uganda. Mr. Kato also noted that Corporate Social Responsibility for companies now goes beyond traditional measures, as sustainability must be incorporated into their governance structures.

He explained that this responsibility should not only be carried by large corporations but that small and medium enterprises must incorporate it within their organizations. According to the World Trade Organization, 95% of companies across the globe fall in this category and provide 60% of jobs. The NEMA Executive Director, Akankwasah Barirega (PhD), noted that the environment can only be saved if all people become environmental stew-

ards, ensuring that everywhere they work, they act as guardians of the environment.

"If all the citizens of the nation become real stewards, that will be our ultimate success. The sustainability awards were conceived to reward outstanding efforts and innovative solutions that contribute to environmental conservation and sustainability and recognize exemplary actions to inspire others to adopt sustainable practices and contribute to our overall environmental sustainability," said Akankwasah.

He added that the awardees have demonstrated that it is possible to balance development and environmental protection. Akankwasah thanked all organizations present at the event for their efforts in being stewards of nature, noting that it is not cheap, but companies and organizations have done it and continue to do it.

He called for private sector players to ensure that they have robust ESG policies because while the nation needs development, it also needs the environment. The two must be an integral part of companies. "Integrating ESG into our corporate strategies is not only about compliance; it's also about fostering sustainable business models that can thrive in the long run."

List of Awardees

- Hoopoe
- Hima Cement Tororo Branch
- Roofings Uganda Ltd
- Kakira Sugar Factory
- CIPLA Quality Chemicals Ltd
- Jesa Dairy Farm Milk
- Kansai Plascon Paint
- Uganda Breweries
- Luwero Industries Ltd
- Total Energies Uganda
- EACOP
- Vivo Energy
- Gulu City
- UWA
- Wildlife Conservation Society
- UNDP
- Stanbic Bank Uganda
- Vision Group
- Kidandi Moses

During the event, the NEMA board members were appreciated for their role as their tenure had already ended. They are awaiting renewal of their term of office or retirement. According to Hon Nakadama, their names are already before the responsible parties for reconsideration.

NEMA recently commenced activities to recover wetlands from encroachers, starting with Lubigi wetland along Nansana Road. With support from the president, NEMA can afford to do assessments on time.

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Buganda
Media Centre

Kingdom of Buganda Celebrates Environment Day with Emphasis on Future Generations

On June 12, 2024, the Kingdom of Buganda c observed its highly anticipated Buganda Environment Day, a day dedicated to fostering environmental awareness and action among its youngest citizens. This year's theme, "Preparing the Children for Future Climatic Solutions," coordinated by the kingdom's principal environmental officer Rotarian Teddy Nabakooza Galiwango under the Ministry of Bulungi Bwansi, Gender, Environment, and Water, aimed to engage students and stakeholders in proactive conservation efforts.

Pre-Event Initiatives

The lead-up to the event began with a media briefing at Bulange on May 31, 2024, designed to create buzz and inform the public about the upcoming celebrations and present all partners. This was followed by a health camp at Ggaba Landing Site on June 8, 2024, where the Owek Mariam Nkalubo Mayamja the Minister in Charge of the Ministry of Bulungi Bwansi, Environment,water and Gender delivered an impactful speech.

The Minister emphasized the critical role of proper waste management in markets to prevent disease outbreaks and urged the implementation of waste segregation practices to generate income through innovative recycling methods. Community-based environmental education, especially for the youth, was highlighted as a key component of the ministry's strategy.

Engagement and Awareness

The health camp was attended by notable figures, including Mr. Magara Nicholas, Commissioner of Wetlands in the Ministry of Water and Environment, and Mr. Ikalai, among others. Organizations such as Bio-Vision Africa, YES Global, the Infectious Disease Institute, KCCA, CBS, and BBS among others were present to support the cause. The event featured the distribution of trees provided by Roofings Group, reinforcing the commitment to environmental conservation.

Debate and speech completion

The speech and debate competition held at the event showcased students from Mengo SSS, Kibuli SSS, Kyambogo College, Baptist High School, Green Hill Academy, and Madina High School. Owek Cotilda Nakatte Kikomeko from the Ministry of Social Services (Education and Health) and Nnaabagereka's Office served as the guest of honor. She praised the students for their insightful debates on environmental issues and expressed gratitude to the teachers and administration of Buddo Parents Academy for hosting the event.

Main Event Highlights

The grand event on June 12, 2024, was graced by Owek Robert Wagwa Nsibirwa, the 2nd Deputy Katikkiro and the Kingdom's Minister of Finance. The occasion featured a variety of exhibitors, including Ecosafe, Kololo SS, Marafiki Green Youth Initiative, the Ministry of Water and Environment, and the Uganda Clean Cooking Alliance.
In his address, Katikkiro lauded the meticulous planning and enthusiastic participation of all involved. He urged attendees to reflect on their role in preserving the environment, emphasizing that it is not only a natural resource but also a divine gift. He cited the past richness of the Lwera wetlands, which have been significantly impacted by sand mining and rice cultivation, as a cautionary tale. The Katikkiro called for increased tree planting, avoidance of wetland encroachment, and the use of renewable energy sources. He extended his thanks to the schools and stakeholders who contributed to the success of the event.

Climactic Tree Planting Activity

The week's activities culminated in a significant tree planting event at U Kyalo Kibugga in Ggombola Musaale Budde, Ssaza Butambala, led by Ssabasajja Kabaka. Demonstrating the kingdom's commitment to involving youth in environmental efforts, 80% of the participants were young people. The Uganda Biodiversity Trust Fund supported the initiative with a generous donation of 12,700,000 shillings under their Ekibira Kya Kabaka initiative.
Through these events, the Kingdom of Buganda has reinforced its dedication to environmental stewardship and the vital role of engaging future generations in conservation efforts.

Older persons: The forsaken population group of Uganda in climate change planning and financing

All around the world governments, experts and activists are putting in wondrous efforts to address the global challenge of climate change and its effects on development sectors including agriculture, environment, energy, education among others and its impact on different population categories. However, very limited if no attention has been given to how the changing climate is grossly leading to the loss of the aging population.

"Older persons' insecurity to climate change is further exacerbated by the total reliance on natural resources for livelihood"

While older persons (OPs) comprise only 4.3 percent of Uganda's total population and continue to be the minority demographic group;1 their needs have been minimally attended to much less the climate induced challenges. With weak safety nets, OPs in Uganda continue to bear the brunt of the harsh climate manifesting in extreme temperatures, droughts, natural disasters like land and mudslides, flooding, etc. Their vulnerability is heightened by pre-existing chronic conditions of disease and poverty that they are grappling with. Their fragile bodies and bones struggle to contend with the cold and heat; find food, medicine and care.

Older persons' insecurity to climate change is further exacerbated by the total reliance on natural resources for livelihood. Approximately 85 percent of active older persons in Uganda engage in subsistence agriculture for their regular income and other needs2. OPs' unsteady health and economic stand-

ing undermines their capacity to adapt and become more resilient to climate change. The most recently released Uganda national budget for the financial year 2024/25 apportioned a total of UGx 516.78 billion for climate change mitigation, natural resources, environment and water resources management and UGx 355.79 billion for social protection3 respectively. This is good and commendable; but not sufficient for the fact that when it comes to the social protection budget, only a small portion will be utilized to support less than half a million older persons as it has to be distributed amongst all the special interest groups. We also need to highlight the budget cut of the Social Assistance Grants for Empowerment (SAGE) budget by 20.8 billion in this financial year which is likely to cause an estimated 100,000 older persons to miss out their monthly pay of UGx 25,0004. A lot more could be said, but most importantly how can we together help the forsaken but very critical population group (older persons) to cope with and overcome the continuing challenges of climate change?!.

As key reference points in communities and custodians of a wealth of indigenous knowledge on environment and climate, older persons should not be left behind in the planning and action for climate change. Rather they should be brought on board because they have a high potential to influence how communities receive or act upon information and organize themselves to adapt to climate change. It is imperative that OPs's role in climate action response is clearly marked out and it is recommended that the Government of Uganda recognizes the intersection between age and climate change. Specifically government needs to; i) consider a specific budget allocation to address climate needs of OPs while recognizing that they are not homogenous, ii) create awareness on climate change in relation to its effects on the older population and avail them with information on how to cope using age-friendly communication media; iii) enhance their contribution by harnessing OPs local knowledge on weather and climate, document it and merge it new science and technology and iv) finally but not least, strengthen the policy framework to boost OPs' ability to respond to and recover from climate change effects.

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Interview with Hon.Biyika Lawrance Songa

Hon Biyika Lawrence Songa Commonly known as Hon. Songa, Hon. Biyika Lawrence Songa is a legislator and Member of Parliament in the Government of Uganda. He serves as the Chairperson of the Committee on Climate Change. Hon. Songa holds a Bachelor's degree in Environmental Management from Makerere University, as well as a Master's degree in Environmental Management and Natural Resources from Makerere University, and a Master's in Business Administration from Cavendish University. In our second edition of the Environmental Magazine, we had the opportunity to sit down with Hon. Songa for an insightful conversation.

We hope you find it enlightening and informative. Interview Questions for Hon. Biyika Lawrence Songa

1. Can you start by sharing a bit about your conservation journey and any advice you have for young professionals in the environmental sector?

My conservation journey began during my undergraduate studies in Environmental Management at Makerere University. I realized the importance of protecting our natural resources,mitigating climate change and achieving peace in the world. My advice to young professionals is to be passionate, persistent, and innovative in their work with good listening and using all opportunities as learning points.

2. As someone deeply involved in both politics and environmental issues, how do you see the relationship between the two?

Politics and environmental issues are deeply intertwined. Effective environmental management requires strong policies and political will. As a legislator, I strive to bridge the gap between environmental concerns and political decision-making.

3. What have been your key achievements as the Chairperson of the Environment Committee?

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4. With the recent budget allocation of over 642 billion shillings, nearly half of which comes from aid, how can the government increase locally sourced environmental financing?

To increase locally sourced environmental financing, the government can explore innovative funding mechanisms such as green bonds, environmental taxes, sustainable mining and mineral development and public-private partnerships and fair trade including carbon trading.

5. The allocated amount for the environment sector is slightly lower than the previous budget. What is your take on these figures?

While the allocated amount for the environment sector is slightly lower than the previous budget, I believe it's essential to prioritize effective utilization of available resources and explore alternative funding sources in addition to investing in areas of top development priorities with higher returns on investment.

6. What income-generating ideas do you think young people can pursue in the climate change mitigation sector?
Young people can pursue income-generating ideas in climate change mitigation such as sustainable agriculture, renewable energy, eco-tourism, and environmental consulting and environment and climate smart technologies.

7. What is your view on Uganda's obligations to fighting climate change, based on successes and failures?
Uganda has made significant strides in fighting climate change, including implementing renewable energy projects and promoting sustainable land use practices. However, there's still a need for increased awareness, funding, and policy support and transparency.

8. Finally, could you share any upcoming projects or initiatives from your team that you believe will significantly contribute to environmental conservation and sustainability
Upcoming projects from my team
include initiatives to promote electric vehicle adoption, resilient transportation systems, clean cooking, enhance environmental and climate education in schools, and support community-led conservation and climate efforts, disaster risk reduction and strengthening preparedness. These projects aim to contribute to environmental conservation and sustainability and climate resilience in Uganda.
By Lubega Boaz

“The Duty of Decarbonization in the Race for Climate Justice

Climate change is our planet’s greatest existential threat. Today climate change is already causing suffering and death. The impacts range from wildfires, supercharged storms, floods and its compounding effects can be felt today, outside our own windows. Understanding these impacts can help us prepare for what’s here and to better prepare to combat the challenges and restore back the climate. GreenHouse Gas Emissions are a chief contributor to climate change. If we don’t limit greenhouse gas emissions from the burning of fossil fuels, the consequences of rising global temperatures will continue to be felt.

Practically, fossil fuels are not the problem; the GHG emissions from the production and combustion of fossil fuels to generate electricity, heat and for transportation is the real problem in the war against climate change. The focus should therefore be on decarbonizing the production and use of fossil fuels (oil and gas) to work towards a net zero carbon petroleum industry to meet energy demands and achieve climate change goals rather than condemning the production of oil and gas which has been proven to provide reliable energy.

In the campaign for climate justice, therefore phasing out the production and utilization of oil and gas will not be the solution but instead more problematic to the global energy security. The share of fossil fuels in the global energy mix is meant to drop from 83% to 72% by the year 2050 as projected, however there will be an overall projected growth in energy demand of 50% by the same year .This implies that fossil fuels will still dominate the global energy mix for the foreseeable future and hence impossible to deal away with fossil fuels without any matching alternative energy sources that are reliable and sustainable to ensure the required global energy security. Oil and gas will therefore continue to provide energy to meet global energy needs until better alternatives become sufficiently available.

To achieve climate change goals and a cleaner green environment while sustainably utilizing the available energy resources to eradicate energy poverty; potential funders, researchers, governments and investors should divert their resources into the development of technologies that shall enable the sustainable production and utilization of fossil fuels in an environment friendly manner. This is a way of decarbonizing the petroleum industry to achieve net zero carbon emissions and hence creating a win-win situation with energy availability and a safe clean environment with an enjoyable climate.

There are existing and promising technologies being developed to capture carbon dioxide during oil production where the captured carbon dioxide instead of being flared to the open atmosphere is put to other uses or injected underground for permanent storage. Carbon dioxide capture and storage technology alone has the potential to reduce emissions from the fossil fuels energy industry by up to 20% by 2050.

Decarbonization is therefore so crucial to attain net zero carbon emissions for a clean environment and global climate resto-

ration while retaining the available energy sources to ensure energy security and avoid global energy shocks. In the war against climate change ,it is still possible to exist with oil and gas by embracing research and inventing super technologies focusing on decarbonizing the petroleum industry to ensure sustainable use of the available energy resources to meet the global energy demand and achieve climate change goals.

By Bahati Dennis

Bachelor of Oil and Gas Production

"To achieve climate change goals and a cleaner green environment while sustainably utilizing the available energy resources to eradicate energy poverty; potential funders, researchers, governments and investors should divert their resources into the development of technologies that shall enable the sustainable production and utilization of fossil fuels in an environment friendly manner"

ENVIRONMENT PARLIAMENT KNOWS HOW.

Environment Parliament (EP) serves as a strategic stakeholder vanguard that fosters citizen-driven climate action. Operating at the subnational level, the EP bridges the gap between marginalized communities and local leaders, facilitating meaningful dialogue and empowering citizens to actively participate in shaping environmental policies. This subnational platform serves as a space for citizens to discuss and provide recommendations and commitments on critical environmental issues and the root causes of climate change.

Beyond its subnational impact, the EP convenes key stakeholders, including state and non-state actors, to engage with subnational citizen representatives and environmental democracy champions. Through this inclusive approach, the EP facilitates consensus-building on priority actions needed to address the environmental challenges discussed at the subnational level. The EP's collaborative process ensures citizen participation, actor transparency, and justice for all. It fosters a collective effort to ensure that the voices of those most affected by environmental degradation and climate change are heard and considered in policy making. The EP stands as a testament to the power of citizen engagement and the transformative potential of inclusive environmental governance.

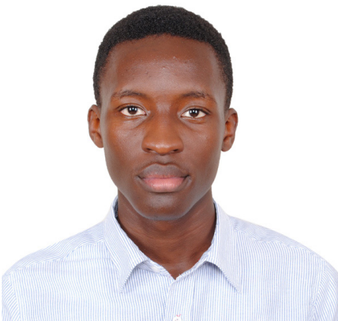
The National Environment Parliament also highlights the themes of the international World Environment Day celebrations. This strategic move allows EP to leverage the global platform of World Environment Day to illuminate international climate change discourse into the National Determined Contributions (NDCs) and raise awareness among local communities. By aligning with the themes of World Environment Day, the EP aims to amplify the voices of marginalized communities and I ensure that their concerns are incorporated into national climate policies. This integration of local perspectives into the NDCs ensures that the country's climate commitments are grounded in the realities and needs of the most vulnerable populations. The discussions at subnational level are summarized into a compendium of policy papers and briefs which inform the order paper (debate) at National level.
The discussions at National level culminate into the Citizens Environment Compact. The Compact summarizes the minimum demands of citizens considered and agreed upon annually for immediate action.

OSWALD TUMBWEBEZE
WHIP EASTERN REGION

"The EP's collaborative process ensures citizen participation, actor transparency, and justice for all. It fosters a collective effort to ensure that the voices of those most affected by environmental degradation and climate change are heard and considered in policy making. The EP stands as a testament to the power of citizen engagement and the transformative potential of inclusive environmental governance"

Environment Parliament Pictorial

It starts with you



"It is time like never before we start asking ourselves what is my part in this."

The environment refers to the surroundings or conditions in which a person, animal, or plant lives or operates. This shows us that we can not exist without our environment. Because we are one of the components of the environment including weather, climate, living species and natural resources. They have a very big role to play in our environment. It starts with you.

Yes, it all starts with you whether you believe it or not. In this world we find ourselves looking for someone to blame for something bad and this also applies to our environment. If there is flooding we may even find ourselves blaming God. When there is a long-term dry season we may find ourselves asking what has happened these days and even some would say back in the day there was more rain than today plus the weather and season would be more predictable. It starts with you.

It is time like never before we start asking ourselves what is my part in this. Yes, mostly certainly I mean you dear reader what is your part. The faster you discover your part in the protection of your environment the faster and safer the environment will be for us and the generations to come. It starts with you.

Yes, you pick up all your rubbish, yes you make sure rubbish is put in the right place. Yes, even sharing your thoughts in the protection of our environment. This is a great part of the safety of our environment. Yet again your part can also extend to your wife, children, mother, father, friends, workmates, admirers, mentees because this is a good habit and should be extended to our society. It starts with you.

Yet again it starts with you allowing to buy land in the swamp. You are allowed to make a land title in the swamp. You dispose of waste in the swamp. You reclaim parts of the lake. You put rubbish anywhere you find. You allow your child to throw rubbish anywhere and everywhere. You burning rubbish whenever and wherever you please. You burning a forest for charcoal. You are burning a forest to find where to plant sugarcane. Even from the school canteen from buying breakfast and you throw rubbish where you please. It starts with you.

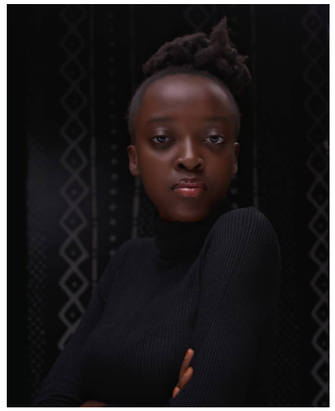
The environment is the way it is because instead of finding what we can do we find who to blame for what is happening. This environment we have can be better if we all do our part. I am writing to you and this is my part. I also would like to find your part in protecting our environment but also don't forget those around you: your workmates, children, teachers, wife, husband, father, mother, sisters, brothers and friends. It starts with you.

It is very important you see yourself in protecting the environment. By this we will experience change and a safer environment for the generations to come.

Do something no matter how small it will influence much as a saying goes Rome was not built in one day. It starts with you.

JUMBA MATTHEW IMRAN.

EMBRACING GREEN TECHNOLOGIES TO COMBAT CLIMATE CHANGE



“ Using green technologies can lead to a number of advantages, such as increased employment, economic expansion, and better public health”

One of the most important challenges of our day is climate change, which has profound effects on human society, the environment, and conservation. Green technology has become a ray of hope as the globe struggles with the effects of global warming, providing creative ways to lessen our carbon footprint and make the shift to a sustainable future.

Climate change has a wide range of effects on biodiversity, ecosystems, and human health. The melting of polar ice caps, rising sea levels, and extreme weather events brought on by rising temperatures are causing habitat loss, upsetting food chains, and increasing the likelihood of natural disasters. The ramifications are extensive, ranging from deteriorating water and air quality to raising the possibility of food instability and mass migration.

One effective weapon in the fight against climate change is provided by green technologies. Our reliance on energy sources that are high in carbon is decreasing as renewable energy sources like solar, wind, and hydro power grow more and more cost-competitive with fossil fuels.
Energy-efficient technologies are cutting emissions, lowering energy usage, and saving money. Examples of these technologies include smart grids, energy-efficient buildings, and appliances.

Green fuels, hybrid autos, and electric cars are examples of sustainable transportation solutions that are transforming the transportation industry and cutting pollution and emissions.

Technologies for carbon capture and storage are becoming more and more crucial for lowering industrial emissions and slowing down global warming. Precision farming, vertical farming, and regenerative agriculture are examples of sustainable agriculture techniques that are improving food security, cutting emissions, and boosting ecosystem services.

Using green technologies can lead to a number of advantages, such as increased employment, economic expansion, and better public health. Green technology can also support sustainable development, enhance energy access, and lessen energy poverty.
But the shift to a green economy necessitates large financial outlays, legislative backing, and a shift in consumer behavior. To encourage the adoption of green technologies, invest in research and development, and create legislative frameworks that support sustainable development, governments, corporations, and individuals must collaborate.
To sum up, green technologies present a potent way to counteract climate change, save the environment, and support conservation initiatives. It is critical to accept these technologies, make investments in research and development, and advance legislative frameworks that encourage their adoption as the world moves towards a sustainable future.

By working together, we can lessen our carbon footprint, save the environment, and guarantee future generations have a sustainable future.
In order to provide healthier air, water, and soil, pollution control technologies such as wastewater treatment systems and air filtration devices work to decrease the release of dangerous pollutants.

The careful use and management of limited natural resources is encouraged by sustainable resource technologies, which protect the fragile balance of ecosystems. Examples of these technologies include water-saving appliances, sustainable forestry methods, and biodegradable materials.

Adoption’s Useful Steps
Businesses and individuals alike can make significant contributions to the adoption and advancement of green technolo-

gies. Basic measures like utilizing energy-efficient appliances, endorsing renewable energy sources, and implementing sustainable habits like carpooling and recycling can have a big influence.
To be an environmental steward, firms must invest in eco-friendly solutions, optimize operations for energy efficiency, and adhere to sustainable supply chain policies.

ADIKIN GRACE KATE LUYINDA

THE IMPERATIVE OF ENVIRONMENTAL CONSERVATION IN PRESERVING OUR PLANET FOR FUTURE GENERATIONS

Environmental degradation and climate change is one of the most critical issues of our time with far reaching effects to our planet and its inhabitants.
Environmental conservation and Climate Action as per SDG 13 is no longer a luxury but a necessity for everyone.

This article will explore the threats to the environment, and the strategies that should be put in place as mitigation factors.
The biggest threat to the environment is global warming which is a result of Greenhouse (GHGs) like Carbon dioxide, Methane and NITROUS Oxide which are released in the atmosphere leading to a higher level of Carbon footprint.
The other threats include poor waste management especially in urban settings. This is in most cases when wastes from homes or

even industries are released into the environment like Rivers and wetlands.

Lastly, deforestation remains a threat where people cut down trees for charcoal burning in places like Karamoja, Northern Uganda, has led to degradation of the land. Furthermore, clearing forests and wetlands for establishment of Industries for example in Namanve and other Industrial parks has endangered the environment.

It is pertinent to affirm that conservation helps to regulate weather and climate patterns, support biodiversity and ecosystems, and support human health and wellness hence maintaining natural resources for future generations.

First and foremost, there should be awareness. It is important to note that dissemination of information about environmental conservation remains a major challenge especially to the people in rural areas which limit community engagement for a greater cause. For instance information about Carbon Neutrality and renewable energy remain inaccessible to people at grass root levels due to lack of social media platforms.

Secondly, more efforts should be put on the use of Renewable Energy like wind, solar hydro and geothermal that produce little to no GHG hence Decarbonisation and promotion of Energy Efficiency. It is true to state that a lot of gasses are released to the atmosphere from industries and vehicles. We therefore need to invest in Energy Transitions which requires empowerment of communities and reduction of taxes on things like pressure cookers, electric bicycles and establishment of solar plants.

Furthermore, there should be a ban on the use of polythene bags and be replaced with paper bags that are sustainable because polythene bags do not decompose which means they remain in the soils for ages which affect the productivity of these soils hence having negative impact on Agriculture but also preventing proper flow of water in the trenches once dumped in the water channels.

There should be proper waste management both from domestic and industrial use. The government should establish gazetted areas for wastes. But also concerned bodies like NEM and NWSC should be held accountable for the same to ensure Industries do not release untreated gases or even chemical wastes to wetlands and water sources which will furthe guarantee proper sanitation a wellbeing of the people.

Lastly, there should be implementation of Government policies for example those adopte from the Paris Agreement, (CO 21 and COP 28 like afforestatior and reforestation which helps in Carbon Sequestration, Energ Transitions, and Climate Chang Adaptations.

Conclusively, conservation is a collective responsibility which requires immediate attention and action through adaptatior of sustainable policies.

The time to act is now and the future depends on it.
TAKALI BETTY.
ENVIRONMENTAL ACTIVIST
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CAT

NEMA'S EFFORTS IN SAFEGUARDING THE LUBIGI WETLAND FOR A HARMONIOUS COEXISTENCE

INTRODUCTION

The Lubigi wetland, an ecological treasure in Uganda, plays a crucial role in maintaining the nvironmental balance of the region. These wetlands are vital for water purification, flood control, and providing habitat for diverse species. However, the encroachment on these wetlands by settlers poses a significant threat to their sustainability. The National Environment Management Authority (NEMA) has taken decisive action to protect the Lubigi wetland, but the challenge remains in balancing enforcement with the welfare of the people who have settled there. This article explores NEMA's efforts and proposes a harmonious approach to resolving the encroachment issue.

NEMA'S ENFORCEMENT ACTIONS

NEMA has been at the forefront of environmental protection in Uganda, and its recent actions regarding the Lubigi wetland underscore its commitment:
Eviction of Encroachers: NEMA has undertaken the eviction of settlers who have encroached on the Lubigi wetland. This action aims to restore the ecological integrity of the wetlands, which are essential for the well-being of Kampala and surrounding areas. Evictions have included the demolition of illegal structures and the removal of unauthorized agricultural activities.

Awareness Campaigns:
To complement enforcement, NEMA has launched awareness campaigns to educate the public on the importance of wetlands. These campaigns highlight the ecological and economic benefits of wetlands, aiming to foster a culture of environmental stewardship.

Collaboration with Local Authorities:
NEMA has worked closely with local governments to identify encroachers and plan eviction operations. This collaboration ensures that actions are taken within the legal framework and with local support.
While these efforts are crucial for environmental conservation, it is essential to address the human element in this complex situation. A more nuanced approach that considers the livelihoods and well-being of settlers can lead to a more sustainable and harmonious resolution.

PROPOSED PROCEDURES FOR A HARMONIOUS SOLUTION

1. Comprehensive Stakeholder Engagement
Engaging all stakeholders, including settlers, local authorities, and environmental experts, is crucial. This engagement should involve:
- **Dialogue and Negotiation:** Initiate open dialogues with the encroachers to understand their perspectives and needs. Negotiating mutually agreeable solutions can lead to voluntary relocations rather than forced evictions.
- **Community Leaders Involvement: Work with community** leaders to disseminate information and facilitate discussions. Their involvement can bridge the gap between NEMA and the settlers, fostering trust and cooperation.

2. Sustainable Resettlement Plans
Forcing people out of their homes without providing alternatives can lead to significant socio- economic challenges. NEMA can adopt the following resettlement strategies:
- Identification of Alternative Land: Collaborate with local

governments to identify suitable land for resettlement. This land should be equipped with essential amenities to ensure a smooth transition for the settlers.

- **Compensation Packages:** Provide fair compensation to those who have invested in the encroached areas. Compensation should cover the cost of relocation and the loss of livelihoods to ensure that resettlers can rebuild their lives without undue hardship.
- **Phased Relocation:** Implement a phased relocation process to minimize disruption. Allowing settlers to move gradually and providing support during the transition can ease the process and reduce resistance.

3. Livelihood Support Programs

To ensure that the affected communities do not fall into poverty after relocation, NEMA can implement livelihood support programs:

- **Skills Training and Development:** Offer training programs to help settlers acquire new skills that can be utilized in their new locations. Skills in sustainable agriculture, crafts, and small businesses can provide new income streams.
- **Access to Credit and Financial Services:** Facilitate access to microfinance and credit services to help resettlers start new businesses or expand existing ones. Financial support can empower them to become self-sufficient.
- **Community Development Projects:** Initiate community projects in the new settlements, such as water supply systems, schools, and health centers. These projects can improve the quality of life and make the resettlement areas more attractive.

4. Ongoing Monitoring and Support

Continuous monitoring and support are essential to ensure the success of resettlement and the protection of the wetlands:

- **Regular Monitoring:** Establish a monitoring system to track the progress of resettlement and the ecological recovery of the wetlands. This system can provide data to guide future actions and address any emerging issues promptly.
- **Support Networks:** Create support networks involving government agencies, NGOs, and community organizations. These networks can offer assistance and resources to resettlers, ensuring their long-term well-being.

CONCLUSION

NEMA's efforts to protect the Lubigi wetland are vital for environmental conservation and the well-being of future generations. However, a balanced approach that respects the rights and needs of the settlers is equally important. By engaging stakeholders, offering sustainable resettlement plans, supporting livelihoods, and ensuring ongoing monitoring, NEMA can achieve a harmonious resolution that protects the environment while uplifting the affected communities. This approach not only safeguards the wetlands but also fosters a sustainable and inclusive future for all Ugandans.

By Mwanga Aaron

"NEMA has worked closely with local governments to identify encroachers and plan eviction operations"

Why the Financial System must respond to Climate Change

The discourse on climate change has evolved over the years, shifting from a peripheral issue to a global focal point, as evidenced by the annual Conference of the Parties (COP), now one of the most important events on the global calendar. With increasing changes in weather patterns leading to extreme events, entire communities and cities are experiencing the impact of climate change.

The non-exclusivity of these impacts not only underscores the urgent need for a global response but multi-sectoral and cross-cutting solutions.
As such, the global consensus on climate action emphasizes an "all hands-on-deck" approach. Institutions like the Intergovernmental Panel on Climate Change (IPCC) and the United Nations Framework Convention on Climate Change (UNFCCC) provide scientific leadership, fostering a better understanding of the climate challenge to anchor the development of frameworks for action. While numerous platforms for action have emerged over the years to amplify the cause and mobilize concrete action, this article focuses on the journey that the global financial system embarked on to contribute to tackling what is arguably one of the greatest challenges of our time.

Climate change poses significant risks to financial stability, including both physical risks (such as extreme weather events, rising sea levels, and natural disasters) given how they transmit into the financial system by adversely affecting assets, and transition risks (such as policy changes, technological shifts, and market volatility), which can lead to stranded assets. The financial ecosystem is progressively integrating climate risk into their risk management frameworks to effectively identify, assess, and mitigate climate risk in their own operations as well as their value chains. For example, for Central Banks (CBs), FIs and companies, this includes examining how climate risk affects traditional risk categories like credit risk, interest rate risk, liquidity risk, foreign exchange risk etcetera. It's no surprise that Environmental, Social, and Governance (ESG) considerations have become increasingly important. Investors and lenders are now incorporating ESG factors in their decision-making processes, leading FIs and companies to integrate ESG frameworks into their business strategies and practices, to promote sustainable business models and align with global climate action efforts.
The financial ecosystem is placing a premium on climate-related data and information, making

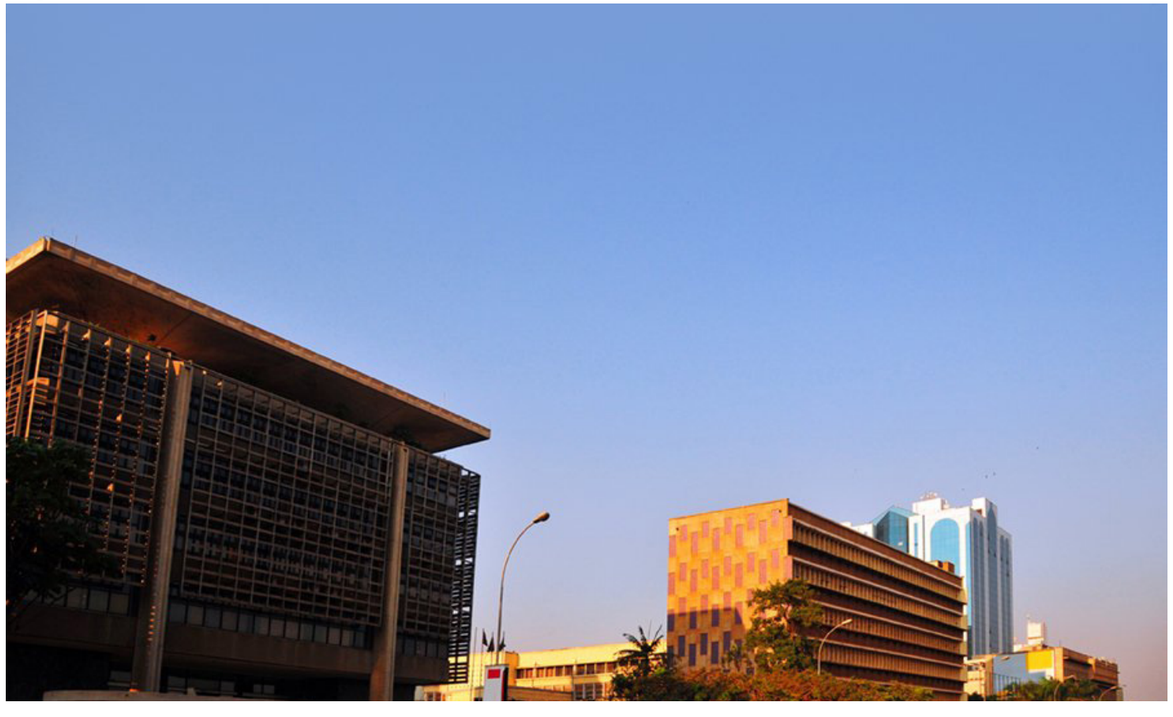
transparency and disclosure crucial. This includes determining exposure to climate risks, establishing emissions footprint, and considering strategies for transitioning to a low-carbon regime. Standardized disclosure requirements and mandatory reporting are already underway in some jurisdictions. In Uganda, companies and financial institutions are increasingly issuing sustainability reports as part of their annual reporting. While global lending has shifted away from financing carbon assets,

Uganda remains committed to exploiting oil and gas in a sustainable manner, aligned to our nationally determined contributions.
Climate change, like many challenges, presents opportunities for innovation and investment for both mitigation and adaptation in areas such as clean energy, climate-resilient technologies, and sustainable infrastructure. The financial system plays a vital role in financing these opportunities, which drives the sustainability agenda, creates new job opportunities and feeds into economic growth.
For example, green financing solutions, including green and climate-linked bonds, carbon pricing mechanisms, climate funds, and lending programmes targeting ventures that drive the transition to a low-carbon economy, have emerged because of collaborative efforts between governments, development banks, central banks, and financial institutions. There is growing appetite among investors for asset classes from governments or corporations that are directly linked and are contributing to a low carbon economy, evidenced by incentives and stringent reporting.

Partnerships and collaboration are key to meaningfully addressing climate change. The financial system can leverage partnerships to develop and share best practices, implement common standards, and scale up climate finance solutions. Jurisdictions are at varying stages of this journey and some financial ecosystems have already made significant progress integrating and mainstreaming climate risk. Uganda's story is young but rapidly taking shape, largely driven by collaborative efforts between various key stakeholders on the back of the existing National Climate Change Act and National Climate Policy. Ongoing collaborative work between leading Government ministries, the Central Bank, the Uganda Bankers Association, the Insurance Regulatory Authority, development partners, and civil society organizations will continue to catalyze and inform policy and action for the financial system as a firm response to the climate challenge.

Edgar Azairwe Rutaagi
Trade Finance Professional and Climate Action Advocate
Currently working with Bank of Uganda

“Partnerships and collaboration are key to meaningfully addressing climate change. The financial system can leverage partnerships to develop and share best practices, implement common standards, and scale up climate finance solutions. “



COP16
COLOMBIA
Paz con la Naturaleza

How a Fireless Cooker Basket Saves You Money and the Planet

> “Consider it to be your pot's heat blanket. By keeping heat from escaping, the insulating materials simulate a low-and-slow cooking technique akin to braising or slow cookers.”

The fireless cooker basket is a kitchen hero in today's society, when economic caution and environmental conscience are equally important. This clever tool is beneficial to the environment and your pocketbook because it uses less energy and has a little environmental impact.

Science behind fireless cooking

Heat retention is the basis for fireless cooking. Using traditional cooking techniques, food is heated to a boil before being moved to an insulated container—such as the fireless cooker basket. This basket, which is usually made from leftover cotton or fabric scraps, retains the heat from the cooking process and lets the food cook slowly and evenly for a longer amount of time.

Consider it to be your pot's heat blanket. By keeping heat from escaping, the insulating materials simulate a low-and-slow cooking technique akin to braising or slow cookers. While using a great deal less energy, the food is cooked to perfection thanks to the retained heat, which also preserves flavors and nutrients.

Reducing energy consumption

Fireless cookers can reduce cooking energy consumption significantly as compared to traditional stovetop methods. Once the pot inside the basket reaches its original boiling point, it doesn't need to be heated externally again. This might result in substantial savings on your gas or electricity expenses, particularly when preparing foods like stews, soups, and beans that usually need lengthy simmering times.

Depending on the size and level of insulation in the basket, fireless cookers can hold heat for a few hours, according to studies. This translates to prepared meals that are ready to eat even hours after preparation, making them ideal for meal prep or hectic schedules.

Waste reduction

Fireless cooking baskets are often advocates of sustainability. Traditionally, they are made by hand from recycled or upcycled materials such as waste cotton, fabric scraps, or natural fibers like jute. This not only minimizes dependency on virgin materials, but it also offers a unique opportunity to reuse textile waste.

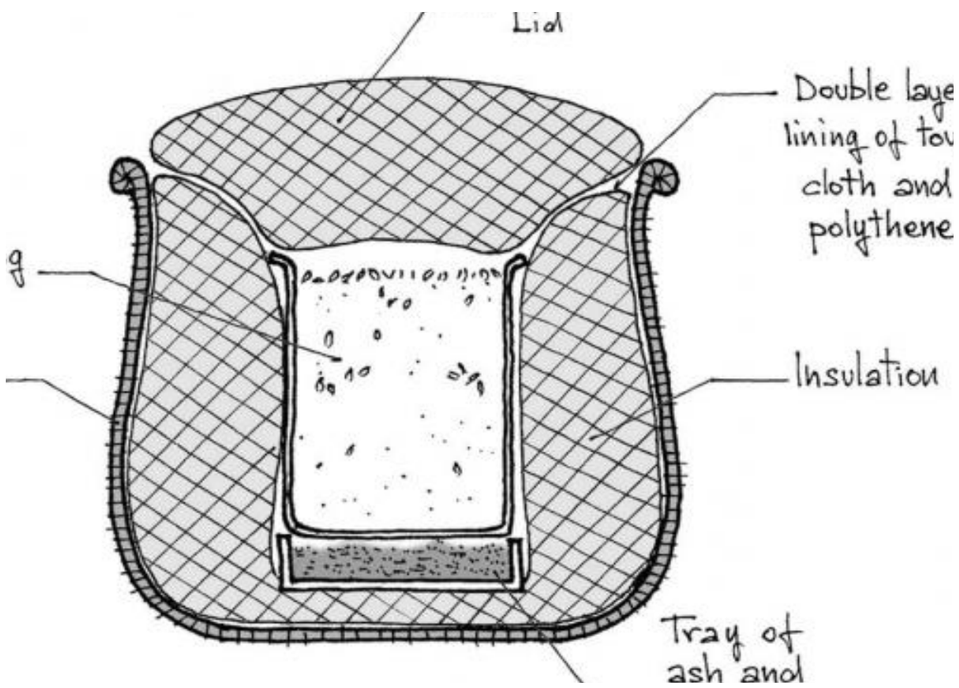
The basket's construction incorporates natural, breathable materials, which adds to its eco-friendliness. These materials promote the circulation of retained moisture, reducing food spoiling and the growth of hazardous microorganisms. This removes the need for plastic wrap or other disposable food coverings, significantly reducing the environmental effect.

Cost savings

Cooking without a fire uses less energy, which means that your

power expenses will go down. You can reduce your energy consumption by using less gas or electricity when cooking for longer periods of time. Those who live in areas where gas and electricity prices are high would especially benefit from this.
Improved meal planning combined with the use of fireless cookers can further reduce expenses. Portion control and food waste reduction are made possible by the capacity to cook big batches of food and keep it warm for long periods of time. This results in spending less money on groceries that would otherwise go bad before being used.
In Conclusion, beyond their positive effects on the environment and the economy, fireless cookers have many other benefits. Compared to high-heat cooking methods, their delicate, low- heat cooking method helps preserve the nutritious value of food. This guarantees that the ingredients you use will provide the maximum benefit to you and your family.

OKEMA GODFREY



Embracing Green Energy: Powering a Sustainable Future.

In an era defined by rapid technological advancement and heightened environmental awareness, green energy has emerged as a beacon of hope, promising a sustainable and cleaner future. As the world grapples with the adverse effects of climate change, the transition to renewable energy sources is not just a preference but a necessity. This shift towards green energy is transforming industries, economies, and everyday life, fostering an era of innovation and environmental stewardship.

The Green Revolution: An Overview

Green energy, also known as renewable energy, encompasses energy sources that are naturally replenished and sustainable over the long term. Key players in the green energy arena include solar,

wind, hydroelectric, geothermal, and biomass energy. Unlike fossil fuels, which are finite and pollute the environment, these renewable sources provide clean and virtually inexhaustible power. Solar power harnesses the sun's energy through photovoltaic cells, converting sunlight into electricity. Wind power captures the kinetic energy of wind using turbines, while hydroelectric power generates electricity from the flow of water. Geothermal energy taps into the Earth's internal heat, and biomass energy is produced from organic materials. Together, these sources form a diverse and resilient energy portfolio, crucial for mitigating the impacts of climate change.

The Benefits of Green Energy

The advantages of green energy extend far beyond environmental benefits. Economically, renewable energy sources offer a pathway to energy independence and job creation. The renewable energy sector is one of the fastest-growing industries globally, providing millions of jobs in manufacturing, installation, maintenance, and research. As technologies advance and economies of scale are achieved, the cost of green energy continues to fall, making it increasingly competitive with traditional fossil fuels.

From an environmental perspective, green energy is pivotal in reducing greenhouse gas emissions and combating global warming. Unlike coal, oil, and natural gas, renewable energy sources produce little to no emissions, significantly lowering the carbon footprint. This reduction in pollutants not only helps in slowing climate change but also improves air quality, leading to better public health outcomes.

Socially, the adoption of green energy fosters energy equity. Many remote and underserved communities gain access to electricity for the first time through decentralized renewable energy systems. Solar panels and wind turbines can be installed in areas where extending the traditional power grid is impractical or too costly, empowering communities and enhancing quality of life.

Challenges and Innovations

While the benefits of green energy are clear, the transition is not without challenges. The intermittent nature of some renewable sources, such as solar and wind, requires advanced energy storage solutions

to ensure a reliable power supply. Innovations in battery technology, like lithium-ion and emerging solid- state batteries, are critical to addressing this issue, providing efficient storage for times when the sun isn't shining, or the wind isn't blowing. Grid infrastructure also needs modernization to accommodate the decentralized and variable nature of renewable energy. Smart grids, which use digital technology to monitor and manage the flow of electricity, are essential for optimizing the integration of green energy into our power systems. These grids can balance supply and demand in real-time, enhance energy efficiency, and reduce costs.

Policy and regulatory frameworks play a significant role in accelerating the green energy transition. Governments worldwide are implementing incentives, subsidies, and mandates to promote renewable energy adoption. International agreements like the Paris Agreement underscore the global commitment to reducing carbon emissions and investing in sustainable energy solutions.

A Sustainable Future

The journey towards a green energy future is a collective endeavor, requiring collaboration across governments, industries, and individuals. As consumers, we have the power to drive change through our choices, whether it's installing solar panels on our homes, supporting green energy initiatives, or advocating for policies that promote renewable energy.

The momentum behind green energy is unstoppable, driven by technological advancements, economic imperatives, and the urgent need to protect our planet. As we embrace this transformation, we are not just investing in new energy sources but in a sustainable, healthier, and more equitable world for future generations.

In conclusion, green energy represents a paradigm shift in how we produce and consume power. It is a testament to human

ingenuity and our capacity for positive change. By continuing to innovate and invest in renewable energy, we are charting a course towards a resilient and sustainable future, where the harmony between human progress and environmental stewardship becomes.

(OGEN IVAN, ivanogen14@gmail.com)

"From an environmental perspective, green energy is pivotal in reducing greenhouse gas emissions and combating global warming. Unlike coal, oil, and natural gas, renewable energy sources produce little to no emissions, significantly lowering the carbon footprint. This reduction in pollutants not only helps in slowing climate change but also improves air quality, leading to better public health outcomes."

World Environment day2024

Climate Change: The Pressing Issue of Our Time

Climate change is the most critical challenge facing our planet today. The scientific evidence is clear: human activities, particularly the burning of fossil fuels and deforestation, are releasing massive amounts of greenhouse gases into the atmosphere, leading to a global average temperature increase of over 1°C since the late 19th century.

The consequences of climate change are far-reaching and devastating. Rising sea levels are causing coastal erosion, flooding, and saltwater intrusion into freshwater sources. Extreme weather events like hurricanes, wildfires, and droughts are becoming more frequent and intense. Melting glaciers and polar ice caps threaten the very existence of some island nations and communities.

The impact on biodiversity is equally alarming. Many species are shifting their ranges or migration patterns in response to changing temperatures, leading to disruptions in ecosystems and potential extinctions. Climate change also exacerbates social and economic inequalities, as vulnerable populations are disproportionately affected by climate-related disasters and changes in weather patterns.

The good news is that there is still hope. Transitioning to renewable energy sources like solar and wind power, increasing energy efficiency, and adopting sustainable land use practices can significantly reduce greenhouse gas emissions. Electrifying transportation and promoting eco-friendly agriculture are also crucial steps.

International cooperation and agreements like the Paris Accord are essential in addressing this global problem. Individuals can make a difference by reducing their carbon footprint, supporting climate-conscious policies, and advocating for climate action.

The time for denial and complacency is over. Climate change demands immediate attention, collective action, and a commitment to a sustainable future. We owe it to ourselves, future generations, and the planet to act now and one of then can be by encouraging green technology.

Green technology, also known as clean technology, refers to innovative solutions and products that reduce environmental impacts and promote sustainability. This rapidly growing field encompasses a broad range of disciplines, including renewable energy, sustainable materials, and eco-friendly infrastructure.

Renewable energy sources like solar, wind, and hydro power are becoming increasingly efficient and cost-effective, providing alternatives to fossil fuels and mitigating climate change. Green buildings and smart grids are being designed to minimize energy consumption and maximize energy efficiency.

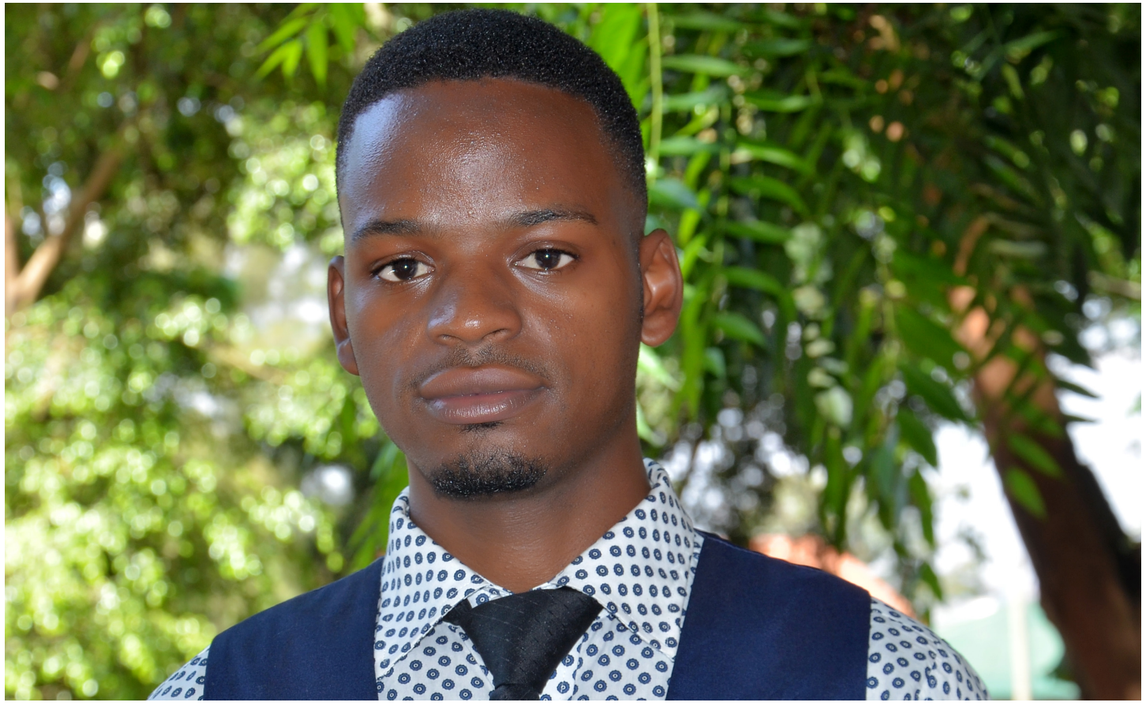
Sustainable transportation options like electric vehicles and hybrid cars are gaining popularity, reducing greenhouse gas emissions and air pollution. Additionally, advancements in recycling technologies and waste management are minimizing waste and promoting a circular economy.

Green technology is not only good for the environment but also has economic benefits, creating new job opportunities and driving innovation. Governments and companies are investing heavily in research and development, driving the growth of the green tech industry.

Transitioning to renewable energy sources, increasing energy efficiency, and adopting sustainable practices are crucial steps towards a low-carbon future. International cooperation and climate-conscious policies are essential in addressing this global problem. Individual actions, such as reducing carbon footprints and supporting climate initiatives, can collectively make a significant impact.

As the world shifts towards a more sustainable future, green technology is playing a vital role in reducing our carbon footprint and protecting the planet for future generations. Embracing green technology is no longer a choice but a necessity, and its potential to transform our lives and our planet is vast and exciting.

Regan Desmond Clay



Understanding Article 6.2 in relation to Uganda

This article examines the strategic implementation of the Paris Agreement in Uganda, particularly through Article 6.2. Recognizing that accelerated action is required to limit global warming to 1.5 degrees Celsius, the Republic of Uganda signed the Paris Agreement in October 2015 and ratified it on 21st September 2016. For Uganda, a country vulnerable to the impacts of climate change despite its minimal contribution to global emissions, Article 6.2 represents a critical opportunity. By participating in cooperative approaches under the Paris Agreement, Uganda not only enhances its climate resilience but also integrates sustainable practices into its national development agenda.

Uganda's Environmental and Geographical Context

Situated on the East African plateau within the Nile basin, lies a nation often celebrated as the "Pearl of Africa" for its breathtaking landscapes and rich biodiversity. Uganda boasts a diverse topog-

raphy that ranges from low-lying lakeshores to towering mountain peaks. This geographical diversity influences its climate, agriculture, and unique biodiversity, making it a hotspot for a wide array of flora and fauna. The equatorial climate ensures stable temperatures throughout the year, punctuated by two distinct rainy seasons, which are critical for its agricultural productivity.

What is the Paris Agreement?

Paris Climate Agreement, also called Paris Agreement under the United Nations Framework Convention on Climate Change, was named after the city of Paris, France, in which it was adopted at 19:27 pm on 12 December 2015, by the then French Foreign Minister Laurent Fabius. He noted that the accord aimed to hold the increase of global temperatures "to well below 2 degrees Celsius above pre industrial levels and to pursue efforts to limit the temperature increase to 1.5 degrees Celsius." The Paris Agreement set out to improve upon and replace the Kyoto Protocol, an earlier international treaty designed to curb the release of greenhouse gases. It entered into force on November 4, 2016, and has been signed by 195 countries and ratified by 190 as of date.

Understanding Article 6.2

Article 6.2 stipulates that; Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement.

Article 6.2, facilitates voluntary cooperation among nations through internationally transferred mitigation outcomes (ITMOs). These ITMOs enable countries to trade emissions reductions, thereby incentivizing sustainable development while ensuring environmental integrity and transparency.

Operationalize Of Article 6.2

Through Uganda's National Climate Change Act 2021,Uganda's contribution to emission reduction is multidimensional, through tree planting; afforest ration and restoration programs, and all these contribute to emission reduction through carbon sequestration, and other benefits, such as biodiversity conservation.

The construction of hydropower dams such as Isimba and Karuma on the River Nile signifies a significant shift towards clean energy sources, reducing reliance on fossil fuels and mitigating carbon emissions. Moreover, Uganda's efforts in reforestation and land conservation are pivotal in carbon sequestration. With over 20% of its landmass designated as protected areas, Uganda actively preserves biodiversity while mitigating climate impacts on vulnerable ecosystems and com**munities.**

Challenges and opportunities ahead

Despite these strides, the livelihood of the people of Uganda is highly dependent on the exploitation of climate sensitive natural resources. For example, in the energy sector, the deficit experienced in the past decades drove the country into using unstable, expensive and polluting thermal generators (diesel and heavy-fuel oil). However, Uganda's NDC opens the door to affordable and modern energy, as inscribed in goal seven of the UNs Sustainable Development Goals.

Conclusion

This submission communicates Uganda's Nationally Determined Contribution (NDC) in fulfillment of Article 6.2 of the Paris Agreement. However much Uganda commits to undertaking a number of policies and measures to support low-carbon development in key priority sectors, the country still faces formidable challenges in fully realizing the potential of Article 6.2. Conclusively, I have a strong conviction that, by harnessing international cooperation and market mechanisms, Uganda showcases the transformative power of climate action in driving economic growth, safeguarding biodiversity, and improving livelihoods across diverse communities.

By Kamulegeya John

Harnessing Green Technology for a Sustainable Future in Uganda

Green technology, also known as sustainable technology, is rapidly emerging as a pivotal solution to the pressing environmental challenges faced by Uganda and the world at large. This technology aims to reduce carbon footprints, enhance energy efficiency, and minimize waste, all while fostering economic growth. As Uganda strides towards sustainable development, embracing green technology can play a transformative role in shaping a cleaner, healthier, and more prosperous future.

The Urgency of Climate Action

Climate change is a critical issue affecting Uganda, with rising temperatures, unpredictable rainfall patterns, and severe weather events posing threats to agriculture, water resources, and biodiversity. The impacts of climate change are not just environmental but also socio-economic, affecting the livelihoods of millions. In this context, green technology presents an opportunity to mitigate these impacts by promoting sustainable practices across various sectors.

Renewable Energy: Powering Progress

One of the most significant areas where green technology can make a substantial impact is in the energy sector. Uganda has abundant renewable energy resources, including solar, wind, and hydropower. Solar energy, in particular, has seen remarkable growth due to the country's high solar irradiance levels. The installation of solar panels in rural areas not only provides clean energy but also improves access to electricity, fostering socio-economic development.

Hydropower projects, such as the Bujagali and Karuma dams, already contribute significantly to the national grid. However, there is still immense potential for small-scale, community-based hydro projects that can provide localized energy solutions. Additionally, wind energy, though underutilized, holds promise for coastal and mountainous regions, offering another avenue for diversifying Uganda's energy mix.

Sustainable Agriculture: Feeding the Future

Agriculture remains the backbone of Uganda's economy, employing a significant portion of the population. However, traditional farming practices often lead to deforestation, soil degradation, and water pollution. Green technology can revolutionize agriculture by promoting sustainable practices that enhance productivity while preserving the environment.

Precision farming, for instance, uses advanced technologies such as drones, sensors, and GPS mapping to optimize crop yields and reduce waste. By monitoring soil health, water usage, and crop conditions in real-time, farmers can make data-driven decisions that improve efficiency and sustainability. Moreover, organic farming practices, which avoid synthetic fertilizers and pesticides, can protect soil health and biodiversity, ensuring long-term agricultural productivity.

Green Transportation: Paving the Way

The transportation sector is another critical area where green technology can drive significant environmental benefits. Uganda's burgeoning urban population and increasing vehicle numbers have led to rising air pollution and greenhouse gas emissions. Transitioning to green transportation options, such as electric vehicles (EVs) and improved public transit systems, can mitigate these impacts.

Electric vehicles, powered by renewable energy sources, offer a cleaner alternative to conventional petrol and diesel cars. The government can incentivize the adoption of EVs through subsidies, tax breaks, and the development of charging infrastructure. Additionally, investing in efficient and reliable public transportation can reduce the number of private vehicles on the road, alleviating traffic congestion and lowering emissions.

Waste Management: Turning Trash into Treasure

Effective waste management is crucial for maintaining environmental health. Uganda faces significant challenges with waste disposal, leading to pollution and health hazards. Green

technology can play a vital role in waste management by promoting recycling, composting, and waste-to-energy initiatives. Recycling programs can convert plastic, glass, and metal waste into valuable resources, reducing the need for virgin materials and minimizing landfill usage. Composting organic waste, such as food scraps and agricultural residues, can produce nutrient-rich fertilizer, supporting sustainable agriculture. Furthermore, waste-to-energy technologies can convert non-recyclable waste into electricity, providing a dual benefit of waste reduction and energy generation.

Conclusion
Harnessing green technology is essential for Uganda to address its environmental challenges and achieve sustainable development. By investing in renewable energy, promoting sustainable agriculture, adopting green transportation, and improving waste management, Uganda can pave the way for a cleaner, greener, and more resilient future. As the nation takes bold steps towards embracing green technology, it not only protects its natural heritage but also sets a commendable example for the rest of the world.

Samuel Otto Junior
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"One of the most significant areas where green technology can make a substantial impact is in the energy sector. Uganda has abundant renewable energy resources, including solar, wind, and hydropower. Solar energy, in particular, has seen remarkable growth due to the country's high solar irradiance levels."

CONSERVING THE EARTH

Earth's natural resources include air, water, soil, minerals, fuels, plants, and animals. Conservation is the practice of caring for these resources so all living things can benefit from them now and in the future.

All the things we need to survive, such as food, water, air, and shelter, come from natural resources.

Some of these resources, like small plants, can be replaced quickly after they are used. Others, like large trees, take a long time to replace. These are renewable resources.
Other resources, such as fossil fuels, cannot be replaced at all. Once they are used up, they are gone forever. These are non-renewable resources.

People often waste natural resources. Animals are over hunted. Forests are cleared, exposing land to wind and water damage. Fertile soil is exhausted and lost to erosion because of poor farming practices.
If resources are carelessly managed, many will be used up. If used wisely and efficiently, however, renewable resources will last much longer. Through conservation, people can reduce waste and manage natural resources wisely.
Development and conservation can coexist in harmony. When we use the environment in ways that ensure we have resources for the future, it is called sustainable development. There are many different resources we need to conserve in order to live sustainably.

Forests
A forest is a large area covered with trees grouped so their foliage shades the ground. Forests are home to more than two-thirds of all known land species.
Forests provide habitats for animals and plants. They store carbon, helping reduce global warming. They protect soil by reducing runoff.

Deforestation is the process of clearing away forests by cutting them down or burning them. People clear forests to use the wood, or to make way for farming or development.
Deforestation destroys wildlife habitats and increases soil erosion. It also releases greenhouse gases into the atmosphere, contributing to global warming. Deforestation accounts for 15 percent of the world's greenhouse gas emissions. Deforestation also harms the people who rely on forests for their survival, hunting and gathering, harvesting forest products, or using the timber for firewood.
Tropical forests give us many valuable products, including woods like mahogany and teak, rubber, fruits, nuts, and flowers.
Sustainable forestry practices are critical for ensuring we have these resources well into the future.
One of these practices is leaving some trees to die and decay naturally in the forest. This "deadwood" builds up soil.
Soil
Soil is vital to food production. We need high-quality soil to grow the crops that we eat and feed to livestock. Soil is also important to plants that grow in the wild. Many other types of conservation efforts, such as plant conservation and animal conservation, depend on soil conservation.
Poor farming methods, such as repeatedly planting the same crop in the same place, called monoculture, deplete nutrients in the soil.
Harvesting all the trees from a large area, a practice called clearcutting, increases the chances of losing productive topsoil to wind and water erosion. Selective harvesting—the practice of removing individual trees or small groups of trees—leaves other trees standing to anchor the soil.
Minerals
Earth's supply of raw mineral resources is in danger. Many mineral deposits that have been located and mapped have been depleted.
Electronic products contain minerals as well as petroleum-based plastics. Many of them also contain hazardous materials that can leach out of landfills into the soil and water supply.
Many governments are passing laws requiring manufacturers to recycle used electronics.

Water
Water is a renewable resource. We will not run out of water the way we might run out of fossil fuels. The amount of water on Earth always remains the same. However, most of the planet's water is unavailable for human use.
People in many regions of the world suffer water shortages. These are caused by depletion of
underground water sources known as aquifers, a lack of rainfall due to drought, or pollution of water supplies.

Polluted water hurts the environment as well as people. For instance, agricultural runoff—the water that runs off of farmland—can contain fertilizers and pesticides. When this water gets into streams, rivers, and oceans, it can harm the organisms that live in or drink from those water sources
Governments enact laws defining how land should be used and which areas should be set aside as parks and wildlife preserves. Governments also enforce laws designed to protect the environment from pollution, such as requiring factories to install pollution-control devices.

Baketunga Richard

"If resources are carelessly managed, many will be used up. If used wisely and efficiently, however, renewable resources will last much longer. Through conservation, people can reduce waste and manage natural resources wisely."

THE POWER OF PERSONAL ENVIRONMENTALISM

Environmentalism advocates the preservation, restoration and improvement of the natural and critical earth system elements or processes such as the climate, and may be referred to as a movement to control pollution or protect plant and animal diversity. Environmentalism views environment rather than heredity as the important factor in the development and especially the cultural and intellectual development of an individual or group. It's better for us to also know the term environmental stewardship which refers to such diverse actions as creating protected areas, replanting trees, limiting harvests, reducing harmful activities or pollution, creating community gardens, restoring degraded areas, or purchasing more sustainable products.

The Catholic Church teaches us that personal environmentalism

and care for creation are essential aspects of Christian stewardship, recently in 2015 in Pope Francis' encyclical known as Laudato Si, which emphasizes the need for ecological conversion and urgent action to protect the planet. The bible and the catechism of the catholic church still gives us a good insight on how to care for the environment and this can be seen in the following ways;

The Church teaches that humans have a responsibility to care for and manage the earth's resources wisely (Genesis 1:28): Catholics are called to be good stewards of the earth, using resources responsibly and protecting the environment for future generations (Psalm 24:1): The Church emphasizes the inherent value of creation, recognizing the beauty and wonder of God's work (Psalm 104:24): The Church advocates for environmental justice, particularly for the poor and vulnerable who are often most affected by environmental degradation (Isaiah 58:6-7): Catholics are encouraged to embrace simple living, reducing consumption and waste, and living sustainably (Matthew 6:19-20): The Church teaches that environmental care is a matter of caring for the common good, promoting the well-being of all people and creation (Catechism of the Catholic Church, 1907-1912).

As the world grapples with the challenges of climate change, environmental degradation, and sustainability, it's easy to feel overwhelmed and wonder if our individual actions can truly make a difference. But the truth is, personal environmentalism has the power to collectively create significant positive change. For instance, if every household in Uganda plants one tree every after two months at the end of ten years the country will not be suffering from oxygen.

Therefore individual can collectively make a significant impact on the environment positively in the following ways;

Aggregate effect: When many individuals make small changes, the cumulative effect can be substantial. For example, if every household in the Uganda replaced just one light bulb with an Energy Star-certified LED, it would prevent large amounts of carbon dioxide from entering the atmosphere.

Community engagement: When individuals work together on environmental projects, they can achieve more significant results than they could alone. Community clean ups, gardening initiatives, and conservation efforts are examples of collective impact.

Influencing policy and industry: Individual actions can collectively influence policy and industry changes. For instance, public demand for sustainable products and practices can drive companies to adopt eco-friendly practices and governments to enact environmentally protective policies.

Ripple effect: Individual actions can inspire others to take similar actions, creating a ripple effect that spreads awareness and encourages more people to make environmentally conscious choices.

Behavioral change: Individual actions can lead to long term behavioral change, perpetuating a culture of sustainability. As more people adopt environmentally conscious habits, it becomes the norm, driving systemic change.

Education and awareness: Individual actions can raise awareness about environmental issues, educating others and inspiring further action.
Collective purchasing power: Individuals collectively have significant purchasing power, which can influence companies to adopt sustainable practices and products.

Community led initiatives: Individual actions can lead to community-led initiatives, such as local renewable energy projects, sustainable transportation systems, and waste reduction programs.

Inspiring innovation: Individual actions can drive innovation, encouraging the development of new sustainable technologies and practices.
Global impact: Individual actions can contribute to global efforts to address environmental challenges, such as climate change, deforestation, and pollution.

Conserving water: Individual actions like fixing leaks, using water efficient appliances, and reducing water usage can collectively conserve this precious resource.

Reducing waste: Individual ac-

tions like recycling, composting, and avoiding single-use plastics can collectively reduce waste and minimize the amount of trash in landfills and oceans.

Protecting biodiversity: Individual actions like planting trees, supporting conservation efforts, and choosing sustainable products can collectively help preserve ecosystems and protect endangered species.

Reducing air pollution: Individual actions like using public transport, avoiding wood fires, and supporting clean energy can collectively reduce air pollution and improve public health.

Educating the next generation: Individual actions like teaching children about environmental importance, leading by example, and supporting environmental education can collectively inspire the next generation of environmental leaders.

Encouraging sustainable lifestyles: Individual actions like sharing knowledge, inspiring friends and family, and promoting sustainable lifestyles can collectively create a cultural shift towards environmental responsibility.

In conclusion, individual actions can collectively make a significant impact on the environment. By incorporating small changes into daily life, such as reducing energy consumption, conserving water, reducing waste, and using sustainable transportation, individuals can contribute to a larger movement towards environmental sustainability, supporting renewable energy, planting trees, avoiding harmful chemicals, and getting involved in community environmental initiatives can further amplify the positive impact. By working together and making conscious choices, we can reduce our carbon footprint and slow climate change, preserve natural resources for future generations, protect biodiversity and ecosystems and create a healthier and more sustainable environment for all. So, let's continue to inspire and educate each other on the importance of environmental conservation and sustainability as we embrace personal environmentalism and make a difference, one small step at a time.

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COLLECTIVE RESPONSIBILITY IN ENVIRONMENTAL CONSERVATION

The greatest threat to our planet is the belief that someone else will save it." (Robert Swan)

The World Environment Day with the theme "land restoration, desertification and drought resilience under the slogan "Our land. Our future." radiated warmth, positivity, unity, inclusivity and a shared vision of a greener, more sustainable future. Members of the Grassroot Network for Environment and Climate Actors, leaders of Nakawa division, development partners, climate activists, and children of Kiswa P/S, Luzira CU P/S, Bright Angels Junior School Kirombe, Mbuya CU P/S, Bbina Islamic Primary School, St James Biina P/S, Uganda Youth AID P/S commemorated this day on 10th June 2024 at Kiswa Primary School located in Kampala Capital City

Participants reaffirmed their commitment to protecting our precious planet for generations to come through numerous activities like the awareness match, a skit by the children, tree planting and a press release advocating for fast tracking the Wetland, Conservation and Management Bill. "The protection of wetlands is vital as they are natural filters essential for maintaining the health of our water, soil, and ecosystems" she emphasized. Environmentalists urged all to manage their waste through reduction, reuse, recycle and recovery. The Kiswa P/S children's skit re-echoed the role of each stakeholder in environment protection e.g. the environmental officers, MPs, local leader, citizens etc.

During the press release key environmentalists pointed out the following.

Member of Parliament Nakawa East Eng Balimwezo emphasized the crucial role of community involvement in environmental conservation. He said, "Our environment is our life support system. Every tree we plant, every effort we make to conserve our wetlands, and every piece of plastic we recycle contributes to the health of our planet. Let us work together to create a sustainable future for our children and generations to come."

Secondly, Hellen Kasujja the Deputy ED Community Integrated Development Initiatives urged lawmakers to fast track laws that protect the environment e.g. the Wetland, Conservation and Management Bill. She advised that all key stakeholders in the private sector, businesses, academia etc should be involved so as to have holistic laws passed.

On the other hand, Hazra Okem, the Country Representative for Seniors without borders, called on all of us to adapt to the reality of climate change. "Investing in young children and integrating climate change education will empower them to build a resilient future for all."

The day was concluded with planting of a 5 trees at Kiswa P/S and the distribution of 6000 trees seedlings to the children and individuals in the communities which had been donated by Balimwezo Community Foundation, GNECA, Community Integrated Development Initiatives, Seniors without Borders and National Youth Advocacy Platform (NYAP). They were encouraged to not only plant the trees but also look after them so that they can grow to provide various benefits like shade, medicine, food to mention but a few.

As we continue on this collective journey we should take deliberate efforts to save mother Earth from any destruction and ensure harmonious living of all.

Written by

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