



Addressing the Challenge of Climate Change and Environmental Degradation; A Case of Uganda.

*Prepared and presented By **Dr. Joshua Zake (Ph.D.),***

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Resilient and dignified communities, managing their environment and natural resources sustainably.

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Environmental Alert exists to advocate for enabling environment, natural resources degradation and food security frameworks for targeted communities through empowerment and policy engagement.



Outline of the presentation

A) Introduction (*background and context*);

B) International policy and legal framework to respond to environmental degradation and climate change

C) Key Responsive National Policies and legal frameworks to curb environmental degradation and climate change;

D) Key emerging issues (*opportunities & challenges*) in respect to environmental degradation and climate change

E) Practical environment and climate change actions

F) Concluding remarks and recommendations

G) About Environmental Alert

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A) Introduction (background & context)

***This presentation underscores the challenge of climate change and environmental degradation in respect to sustainable livelihoods, economic development and transformation. It underpins some actions and initiatives taken at the global and national levels to address the issues and suggests practical actions and recommendations for reflection for implementation going forward to advance climate change adaptation, environmental restoration & sustainable management.**

Key definitions:

- **Climate** is the prevailing or average weather conditions of a place as determined by the temperature and metrological change over a period of time. Various factors determine climate and the most important are rainfall and temperature.
- **Climate change** refers to any change in climate over time, whether due to natural causes or as a result of human activity.
- **Adaptation** is about developing the right responsive policies, practices, technology and institutional arrangements to manage the climate change impacts.
- **Mitigation** refers tom actions/strategies implemented that result in avoidance release of emissions or enhancement of carbon stocks.
- **Environmental degradation** is the deterioration in environmental quality from ambient concentrations of pollutants and other activities and processes such as improper land use and natural disasters (OECD, 2001).

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A) Introduction (background & context)

***Climate change and environment degradation are mega and global trends, which are inter-linked and interdepend.**

***They are human induced based on the underlying human activities across sectors.**

***Both Climate change and environmental degradation happen at different scales i.e. village, community, local, national and international/global scales.**

***Both require responsive actions at community level to address the impacts!**

- **Climate change** is largely human induced due to release & accumulation of Green House gases (GHGs) in the atmosphere from various human activities (e.g. *burning of coal, oil & gas, agriculture, deforestation forest degradation, transport, industrial development*).
- The accumulated GHGs (*such as carbondioxide, water vapour, nitrous oxide*) over the years react with and weaken the Ozone layer resulting into direct heating of the earth and or absorb and emit the heat resulting Green House Gas effecting, overall contributing to Global warming. This impacts on the climate and impacts manifest as *high/increasing temperatures, prolonged droughts, raising water levels/floods in the lowlands, landslides == Increased infestation of pests and diseases, loss of lives,*
- **Environmental degradation** is largely as a result of following (some examples): **Poor management practices – also associated poor access and application of technology along value chains; *Unsustainable consumption and greed, *Increased demand for environment products & services with increasing population; *Poor waste management and disposal – soil and water pollution; *Conversion of forest & wetlands land use into other land uses e.g. encroachment by agriculture, urbanization & infrastructure development*
- **Some impacts of environmental degradation include:** **Soil erosion/degradation, *Decreasing land and soil productivity; *Food & Nutrition insecurity; *Pests and diseases infestation in crops, livestock and human; *Unhealthy or low body immunity*

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B) International policy and legal framework to respond to environmental degradation and climate change

There are various global responses/efforts in terms of policy and legal instruments targeted at addressing climate change and environment degradation.

These are anchored within the United Nations Framework.

Uganda as a Nation is a member of the UN and hence forth signatory to these policy and legislative instruments.

- [Agenda 2030 – Ambition for Sustainable Development Agenda](#)
- [Millennium Development Goals \(MDGs\)](#)
- [17 Sustainable Development Goals \(SDGs\)](#)
- [United Nations Framework Convention on Climate Change](#)
- [Kyoto protocol](#)
- [United Nations Convention to Combat Desertification](#)
- [United Nations Convention on Biodiversity](#)
- [Cartagena Protocol on biosafety](#)
- [Nagoya Protocol and access and benefit sharing](#)
- [The Ramsar Convention on wetlands of International Importance](#)
- [Basal convention on transboundary movement of hazardous waste](#)

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B) International policy and legal framework to respond to environmental degradation and climate change

Environment & Natural Resources (ENR)

Food Security (FSE)

Water, Sanitation & Hygiene (WASH)



Source: UN Agenda, 2030 (2015).

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Uganda Country Context – Key statistics

- **Population annual growth rate** in Uganda is **3.3%**, thus Uganda is ranked **32nd globally in 2018** and is estimated at **41 million (27% is urban population) 2021 and 61 million Ugandans currently/now and by 2030**, respectively.

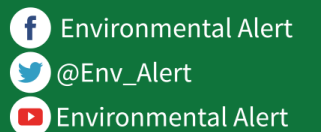
- Uganda's current forest cover stands at **12.4% reducing from 24% as it was in 1999** (Sector performance report by the MWE 2020).
- **Degradation rate stands at 18%** (MWE, 2018). Annually, 250,000 Ha of trees/forests lost – compared to 10 million Ha lost annually at the global scale.
- National Wetlands coverage is at **10.9% intact and 4.1% degraded and 2.6% completely lost**
- **Kampala City generates 45,000 tons of waste per day**. Of this only 1 third is properly disposed off, leaving the 2 thirds indiscriminately disposed off ending up in drainage channels, wetlands, lakes and rivers.
- **Cost of Water Treatment is 4 times what it was 10 years ago** - due to increased dosage of chemicals used in treatment of increasing poor water quality due to pollution.
- **Proportion of poor persons** is at **20.3%**, (Uganda National Household Survey 2019/20)
- **95% of the population** still depending on biomass as a source of energy for cooking
- **Very low per capita energy consumption in the world with 215 kWh per capita per year** (Sub-Saharan Africa's average: **552 kWh per capita**, World average: **2,975 per capita**) (Energypidia, 2019).
- **High levels of unemployment** especially **youth unemployment 78%** in 2012/13 and 66% in 2015;
- **High income inequalities, regional imbalances, gender disparities**
- **Vulnerability to the adverse impacts of climate & environment change and external shocks;**

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Floods submerge road in Bwaise, 2011. Awamu,



bandoned houses in Bwaise – due to flooding, 2010. Echwalu



Poor Waste management and disposal in Kampala City.



Such Toilet facilities are common in Kampala Slums and have a practice of disposing off sewerage into drainage channel at the onset of the rainfall down pour!

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C) Key Responsive National Policies and legal frameworks to curb environmental degradation and climate change;

The Government of Uganda through the respective Ministries, Departments and Authorities develops National policies, legislation, Plans and Programs to contextualize the ratified UN conventions, so that the national commitments made there-in are implemented at different levels.

Each country contextualizes and operationalizes the global policy frameworks into their national policies, laws, plans and programs at different scales. In Uganda this is being done through the following:

1. [National Vision – Vision 2040](#)
2. [National Development planning \(NDP\) frameworks – NDP1, 2 & 3](#)
3. National sector (*i.e. Water & Environment; Agriculture; Energy and Mineral Development*) policies and legislative frameworks, e.g., National Environment Management Policy, 2017 & [Act, 2019](#); [National Forestry Policy, 2001 & Act, 2003](#); National Oil & Gas Policy; [National Mineral Policy](#) [National Energy Policy](#); Climate Change bill, 2021; ...
4. Sector Development/Investment Plans for Ministries, Departments and Authorities
5. Sector strategies e.g. Biomass energy strategy, Gender mainstreaming strategies
6. Sector Guidelines e.g. Climate Change Mainstreaming guidelines
7. 5 years District Development plan
8. Environment and Production Ordinances/bylaws established by districts and sub-county
9. Country strategies for various Development Partners
10. Strategic plans for Development Partners, Civil Society and Networks..

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D) Key emerging issues (*opportunities & challenges*) in respect to environmental degradation and climate change

Key Challenges

- 1) **Poor Governance in environment and natural resources management at all levels – Corruption** (e.g. *illegal land titles in wetlands & forest reserves*), **impunity** (e.g. *illegal activities in forest reserves,..*)
- 2) **Climate change impacts are more pronounced, visible, more re-current and destructive** – *infrastructure and loss of livelihoods and lives e.g. Victims of Budduda Landslides in Eastern Uganda*
- 3) **Uganda as a country is highly vulnerable to climate change impacts and has a weak adaptation capacity** – as linked to advancement in innovation & technology, Institutional capacity – set-up and response – preparedness and disaster management
- 4) **Over dependence on biomass (95% of the population)** still using rudimentary technologies and practices, which are wasteful with implications in terms of health risks;
- 5) **High tariffs for hydro electricity** – thus, majority of Ugandans cannot afford the electricity;
- 6) **Limited access and utilization of alternatives Renewable Energy technologies through technology transfer & development;**
- 7) **Weak enforcement of policies and laws – Inadequate budget allocations to the sectors e.g. Water and Environment at 1.4% of the total budget;**
- 8) **The high influx of refugees** presents a huge energy demand at the household level – accelerating environment degradation in the host communities and landscapes;

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D) Key emerging issues (*opportunities & challenges*) in respect to environmental degradation and climate change

Key Opportunities

- 1) Ongoing plans and policy reviews and responsive recently approved plans and or policies e.g. **National Development Plan III, Environment Management Act, Climate Change Act** recently approved; **Energy, Forestry and laws** being reviewed/updated
- 2) **Young population** presents an opportunity that the country can capitalize on *to increase its competitiveness and can participate in various environment and natural resources, renewable energy enterprises if organized*. 77% of Uganda's population is dominated by the youth under 30 years of age (UBOS, 2017);
- 3) Government, Non-Government Organizations and Private Sector **programs/projects promoting climate action and environmental restoration**;
- 4) Existing **international funding mechanisms (e.g. Adaptation Funds, Green Climate Funds, ...)** to support investments in climate, environment and natural resources management actions

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E) Some Practical environment and climate change actions

Environment & Natural Resources (ENR)

Food Security (FSE)

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- a) Tree growing** (*– through plantations, woodlots, agroforestry, in the compound, along land boundaries, roads*) to increase overall national tree cover.
- b) Sorting wasting – 3Rs concept to waste management along the management chain** i.e. *Reduce, Recycle, Reuse. This can also be linked to enterprise development for income generation and livelihood improvement depending on the type benefits from recycled and reused waste
- c) Establishing Environment and Natural resource based enterprises** (i.e. Bee keeping, Eco/Agri-Tourism, Medicinal processing, Bird watching, Tree Nursery management, ...) for livelihood and additional incomes to reduce over dependence on the environment and natural resources – while sustaining the eco-system services (*e.g. rainfall formation, temperature & water cycle regulation*) and products
- d) Integrated enterprise development and management at farm level** – *Crop, *Livestock, *Tree integration with appropriate mix of annual and perennial crops
- e) Appropriate soil nutrient and water conservation practices** (*e.g. fanya chini, fanya juu, mulching, fertilizer application,...*) for effective management of runoff, soil erosion and associated siltation into the lakes and rivers.
- d) Participation in other off-farm activities** (*e.g trading, providing technical/professional skills & services as linked to various technologies*), which that are not directly impacted by the climate change vagaries/impacts.

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E) Practical environment and climate change actions



Assorted products made from recycled straws by Kinawattaka Women's Initiative in Nakawa Division. **Photo by EA.**



Improved energy cooking stoves. **Photo by WWF-UCO.**



Improved institutional stoves – for baking – as part of technology access support by provided to a Women's Group in Kampala, Makidye dision – by EA in collaboration with Water Aid Uganda. **Photo by EA.**

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F) Concluding remarks

- Climate change and its impacts on livelihoods of livelihoods and economic development and transformation are here with us and is not about to go. **Business as usual** is not a solution because the impacts undo the efforts and achievements previously delivered. Besides, its very expensive/costly to restore what has been destroyed by these impacts.
- **Going forward subsequent investments and actions across sectors and at all levels should consider a business unusual** approach, by which adaptation & mitigation plans actions, strategies must be informed by the prevailing climate variability & change based on projection by the Uganda National Metrological Authority.
- **In light of the statics in respect to the current environment status** (e.g. current annual environment/natural resources loss/degradation) and the **associated projected demand for environment services and products as dictated by the population growth**, its important that the **Investments** (i.e. advancement in innovation & technology; Institutional capacity building, increased financial resources allocation – especially at the Local Level) **targeted at environmental restoration are in tandem to measure up with these demands to ensure sustainable development.**
- **A well restored and sustainably managed environment and natural resources** provides a caution to various climate change impacts/disasters, *micro climate temperatures, flood regulation, management of pests and diseases. Besides, it plays an important mitigation role in terms of absorption and storage of the Green House Gas emissions.
- **Every action counts** -- *Individual, *Household, *Community, *Organizational/Institutional, *National and *International
- **Local and national action and response should not wait for international response and action!**

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F) Recommendations

- 1) More targeted awareness creation – mindset & and attitude change to influence individual, household and community decisions, choices and actions to environment management and climate action.
- 2) **Supporting and promoting (i.e. training, access to technology/innovations) local/community actions on advancing climate change adaption**
- 3) **Promoting Environment and Natural Management Stewardship** – *This about environment integrity, thus – Doing the right thing even when no body is seeing – especially for Duty bearer/Decision makers and the Rights holders/Users.*
- 4) **Investment in Technology, Innovation Development and Transfer** – as applied to climate change adaptation & Mitigation and Environment Restoration and Management.
- 5) Climate and environment change comes with opportunities, its important for repositioning to tap into such opportunities for better benefits at different scales.

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G) About Environmental Alert

Environmental Alert was founded in **1988** and is officially registered **Non Government Organization** with board. Thus, in 2018 – **Environmental Alert** made **30 years** of contribution to **food security and sustainable environment and natural resources management** in Uganda.

Environmental Alert is a **1st prize winner of the Energy globe award** for **environmental sustainability- 2005** under the category, earth.

Environmental Alert is a member of the **International Union for Conservation of Nature (IUCN)** and a **Member of The IUCN National Committee for Uganda**.

Environmental Alert envisions, ***‘Resilient and dignified communities, managing their environment and natural resources sustainably.’***

Environmental Alert’s mission is to, ***‘Contribute to improved livelihoods of vulnerable communities by Enhancing agricultural productivity and sustainable natural resources management.***

Further information about Environmental Alert is available at:
<http://envalert.org/>

Environmental Alert hosts Secretariat for following networks:

- a) **The Network for Civil Society Organizations in Environment & Natural Resources Sector (ENR-CSO Network)**
<http://enr-cso.org/> ;
- b) **Uganda Forestry Working Group**
<http://ufwg.envalert.org/>;
- c) **The Standards Development Group**; and
- d) **Promoting Local Innovation in ecologically oriented agriculture and natural resources management (PROLINNOVA-Uganda Network)**
<http://www.prolinnova.net/uganda>.
- e) **National CSO network on Renewable Energy** - <http://recso-network.org/>

Thank you for listening. For God and my County.

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