



Climate Change and its implications for sustainable land development

**National Land Conference
Accra International Conference Centre**

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Appreciations

- Congratulations COLANDEF, Lands Commission and MLNR for convening this conference
- Appreciations to Rights and Resource Initiative (RRI), an international NGO based in Washington DC, USA who has also been involved in supporting the organization of this conference. RRI has been a long time collaborator with the Lands Commission in Ghana and Land Commissions across Africa.
- It is unfortunate they are unable to be here in person and I take this opportunity as a partner and collaborator to acknowledge them.

Climate change and its implications for sustainable I and development

Mining, Deforestation, Land degradation and development

- Several human factors are inducing climate change with consequence for sustainable land development
- Forests are the most significant agent for removing carbon dioxide.
- In the last decade, illegal surface mining in Ghana has caused massive deforestation than any other factor with severe climatic consequences
- Artisanal mining approach and processes has been very destructive, causing massive land degradation*.
- Reclaiming destroyed farmlands come at a cost – who bears the cost ?
Currently those responsible for the destruction are walking about free – no disincentive
- Farmlands destroyed by artisanal mining become unsuitable for food farming because of the heavy metal impregnation
- Should the land be repaired, it can only be suitable for growing trees to extract the heavy metals as a first step.



Climate change and land degradation

- Land plays an important role in the global carbon cycle because land ecosystems continuously exchange carbon fluxes with the atmosphere through natural processes and anthropogenic activities related to agriculture, forestry, and other land use (AFOLU)
- UNCCD's Land Degradation Neutrality (LDN) conceptual framework proposed three hierarchical policy responses to avoid land degradation that go hand in hand with climate actions:
 - i) avoiding further land degradation by halting conversion of land types, eg forest land into other uses;
 - ii) reducing the impact of land-intensive activities by using Sustainable Land Management practices, so that less carbon is released from soil, crops and other biomass; and
 - iii) reverse land degradation, by restoring or rehabilitating land that has lost productivity; lands destroyed by artisanal mining

- Economic evaluations of various climate change mitigation alternatives show that capturing carbon through restoring degraded lands (including degraded forest) is a cost-effective option that offers multiple co benefits.
- The role of land ecosystems as a source and sink of emissions positions land as a key element of intervention for climate change mitigation and adaptation.



The need to avoid land degradation

- The annual cost of land degradation in Ghana is estimated at USD1.4 billion (about 6% of Ghana's GDP). Makes it imperative that we try to avoid land degradation
- Land degradation leads to reduction in the provision of ecosystem services that takes different forms - deterioration in food availability, soil fertility, carbon sequestration capacity, wood production, groundwater recharge, etc.- with significant social and economic costs to the country
- Land is a source of well-being for present and future generations: providing a wide range of ecosystem services that sustain human needs.
- Land degradation can severely influence livelihoods by limiting the availability of vital ecosystem services (including food and water), increasing the risk of poverty(1) and ultimately forcing people to migrate



- Climate change impact varies and affect people in different ways. Climate change can, depending on the location, lead to more intense rainfall, greater flooding, more frequent and severe dry spells, increased wildfire and sea-level rise.
- In the savannah zone where land is already highly prone to desertification, climate change worsens the situation as there may be less rainfall, shorter farming seasons; more aridness of the land
- In Ghana. Agricultural production is highly dependent on weather and climate. Without adequate rainfall and appropriate temperatures, crops would fail and pastures become barren. Interestingly, the opposite is also true: weather and climate are influenced by agricultural practices.



- Climate change will affect soils, leading to changes in soil erosion, organic carbon, nutrients and alkalinity.
- Decreasing soil carbon due to climate change also has implications for accounting of carbon emissions from the land.
- Human Indiscipline:- building in waterways, filling up of marshy areas and wetlands for residential development and petrol stations are taking away the capacity and ability of marshlands as reservoirs for flood and excess water.
- On average, flooding affects around 45,000 Ghanaians every year, and half of Ghana's coastline is vulnerable to erosion and flooding as a result of sea-level rise



Conclusion

- Besides climate change impact, most of the challenges Ghana is facing from land development is because Ghana does not have a national land use plan to guide and direct land use for development purposes.
- Our expectation is that we will take advantage of the implementation of this Land Act 1036 to develop and implement a national land use



Thank
You!

A close-up photograph of a person's hand holding a black marker, completing the word 'You!' in a cursive script. The word 'Thank' is already written above it. The background is a plain, light-colored surface.



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