

# CLIMATE SMARTAGRICULRURAL EXTENSION AND ADVISORY SERVICES CAPACITY NEEDS(Local government context)

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# BACKGROUND.

- Climate Smart Agricultural Extension and Advisory services are aimed among others to mitigate and ensure adaptability to both the short and long term negative effects of climate change.
- Climate change is the long term change in global or regional climate patterns over periods of time ranging from decades to millions of years.
- The change may be limited to a specific region or may occur across the whole earth mainly attributed largely to the increased levels of carbon dioxide produced by the use of fossil fuels.
- Climate change is already being observed in Uganda manifested by rising temperatures, melting ice caps, prolonged droughts, short rain patterns and floods just to mention but a few.
- Metrological data shows that since the 1960,s Uganda's mean annual temperatures have risen by 1.3 degrees and rainfall has decreased significantly.

# Background

- The negative effects of climate change are more pronounced at the sub national and local level where farming takes place.
- The most vulnerable are the subsistence rural farmers who constitute up to 60% of the entire farming households in Uganda.
- The effects are even more pronounced in the Dry cattle corridor of Uganda that is home to over 50% of all the livestock in Uganda.

# Biophysical effects of climate change.

- Biophysical effects on crops, livestock, pastures and forests in terms of quality and quantity.
- Changes in land, soils and water resources.
- Increased weeds and pests challenges.
- Changes in spatial and temporal distribution of the impacts.
- Water temperature raises causing shifts in water species.
- Decline in yields and production.
- Reduced GDP From Agriculture causing distortion in trade regimes.
- Increased number of people at risk of hunger and food insecurity.

# Key approaches to address Climate change

- Climate change and climate Smart Agricultural practices are development issues and not merely environmental and Agricultural challenges.
- The former can be addressed through.
- Mitigation.
- Adaptation.
- Disaster risk reduction and provision of community safety nets.

The adaptation and mitigation costs estimated at us dollars 406-644 millions per annum are much lower than the cost of inaction estimated at 1-5.9 Billion dollars by 2025( An increase of 2-3 degrees will reduce coffee and banana production by over 80%.

# Negative farming practices influencing climate change

- Over cropping, monocropping and soil mining.
- Over stocking and overgrazing.
- Rangelands destruction.
- Forest destruction.
- Encroachment on wetlands and marginal areas for Agriculture, settlements and industrialization.
- Rapid urbanization and population explosion.

# Climate Smart Agricultural Extension Technologies to promote sustainable Agriculture.

- Afforestation to improve on forest cover and carbon sequestration.
- Promotion of appropriate agroforestry trees into the different farming systems.
- Promotion of low cost soil and water conservation technologies.
- Promotion of integrated soil fertility enhancing technologies.
- Enhancing appropriate fodder production conservation and seed multiplication technologies.
- Destocking and observing proper stocking levels.
- Provision of low cost water for production and conservation technologies.

# Climate smart technologies

- Introduction of integrated, pests, diseases, parasites and weeds management technologies.
- Introduction of appropriate mechanization across the value chains (Production, agronomy, harvesting, post harvest handling, value addition and quality assurance). Also provides alternative employment and offsets labor from land.
- Promotion of drought resistant early maturing crops and livestock as well as promoting orphaned crops and livestock.
- Strengthening farmer extension research linkages.
- Providing alternative livelihoods and safety nets to farmers during disasters.
- Improving funding for Agriculture and Agricultural credit financing and insurance schemes.
- Providing a paradigm shift in the mindset of the farmers, researchers, funders and extension workers on the need for Climate Smart Agricultural practices.



# Climate Smart Agriculture capacity Gaps in Local governments.

- Short term and long term trainings inappropriate Climate Smart Agricultural and sustainable land management practices.
- Integrated pests, parasites, diseases weeds and soil fertility management technologies. Veterinary and plant clinics, regional laboratories.
- Adaptive research and establishment of on farm trials.
- Drought resistant and water efficient crop varieties/grafting technologies
- Low cost value addition, food preservation and processing technologies. Food quality analysis and standards.
- Appropriate fodder production and conservation technologies including feedlots management.
- Low cost water harvesting and irrigation technologies

# Climate smart technologies gaps.

- Low cost soil testing and analysis technologies.
- Exposure visits to research stations and successful farmers.
- Re tooling and increased financing.
- Utilization of appropriate machinery for production, value addition and processing

# CONCLUSION.

- One of the engines propelling The Uganda's vision of transformation to a middle income state by 2040 is Agriculture. Climate Smart Agriculture is a key component of this. For the vision to be realized there is a need to address the critical gaps in the institutional, financial and technical capacities of the different actors. Since this is a development issue. There is a need for all actors to come on board. Together we can. Africa and Uganda are said to have an enormous potential for Agriculture. But the farmers do not eat potential. There is a need to transform this potential into food on their plates or incomes in their pockets.

# END OF PRESENTATION

- Thank you All. EYALAMA.