



Investment in Technology Development and Transfer for accelerated Climate Change Adaptation & Mitigation in Uganda!

KAMPALA – Technology development and transfer is an initiative by the United Nations Framework Convention on Climate Change (UNFCCC) for supporting the member Countries in advancing climate change adaptation and mitigation through technology.

Furthermore, the UNFCCC instituted a technology mechanism comprising of the Technology Executive Committee and the Climate Technology Center and Network, which facilitates enhanced action on technology development and transfer for supporting progress on climate change mitigation and adaptation. It recognizes the importance of rapid acceleration of transformational changes in climate resilience and greenhouse gas (GHG) emissions reduction.

Climate technology refers to, 'a piece of equipment, technique, practical knowledge or skills for performing a particular activity, (Intergovernmental Panel on Climate Change, 2000). Technology development and transfer is a broad set of processes covering the flows of knowledge, experience and equipment for mitigating and adapting to climate change amongst different stakeholders including governments, private sector, financial institutions, non-governmental organizations and research/education institutional. Its an issue for negotiation among the member states during the annual Conference of Parties (CoP).

Thus, every member state (including Uganda) set up a team of negotiators who deliberate on specific national concerns/interests regarding technology development and transfer. The Ministry of Science, Innovation and Technology is the National Designated Entity for development and transfer of technologies in Uganda.

Climate change is the change in the average conditions such as temperature and rainfall in a region over a long period of time (NASA, 2020), is a development issue, that impacts on all sectors, related community livelihoods and overall economic development nationally and globally. Some of the reported climate change impacts include: prolonged droughts, floods, landslides, and increased proliferation of pests & diseases. In Uganda, the climate change impacts are still with us and therefore responsive adaptation and mitigation actions by respective countries as stipulated and committed in the UNFCCC. Climate change adaptation entails adjustments in practices, processes, structures based on the changing climate conditions, moderation of potential damages, or benefit from opportunities associated with climate change. On the other hand, mitigation is about advancing interventions, which reduce GHS emissions or enhance GHG sinks (NAPA, 2007).

Responding to the climate change adaptation and mitigation needs based on the national circumstances and as committed in the Nationally Determined Contributions (NDCs) for Uganda requires assessment of the technology needs and development and implementation of action plans as a basis for investment. In 2015, Uganda submitted its NDCs with commitments to national priority adaptation actions in the Agriculture, Forestry, Water, Infrastructure, Energy, Health, Urban risk management while addressing cross cutting issues such as human rights and gender-responsive climate change actions and protection of vulnerable groups (e.g. women). Additionally, it committed national mitigation contribution in the Energy, Forestry, Wetlands and Agriculture.

Despite this, there are some key challenges limiting technology development and transfer as stipulated in the National Development Plan III including: Lack of formal mechanisms for facilitating technology transfer; Low budget allocation to Science Technology and Innovation (STI) sector (currently at 0.3% of the national budget); Lack of incubation and technology parks across sectors to facilitate innovation and technology development; and lack of formalized established mechanisms linking universities and research institutions with industry to facilitate development and commercialization of new innovations; Weak institutional capacity for effective negotiation with the annual UNFCCC CoPs.

Of note, there are some initiatives at the national level targeted at addressing some of these challenges. In 2019, the Uganda National Council for Science and Technology in collaboration Ministry of Science and Technology coordinates the Technology Needs Assessment (TNA) for Uganda, focusing on Energy, Agriculture, Forestry and Water. The initiative is funded by Global Environment Facility and executed by United Nations Environment, in collaboration with the United Nations Environment Technical University of Denmark Partnership Centre on Energy, Climate and Sustainable Development. TNAs help in tracking evolving needs for equipment, techniques, practical knowledge and skills which are necessary to mitigate GHGs emissions and/or reduce vulnerability of sectors and livelihoods to the adverse impacts of climate change. Therefore, Government and Development Partners should pursue investments in the prioritized needs for promotion of technology development and transfer for climate change adaptation & mitigation acceleration at all levels.

Ugandas negotiation capacity should be strengthened for effective participation during the annual CoP negotiations within the UNFCCC framework. Increased investment in the STI sector budget allocations will enable effective delivery of outcomes in STI sector as committed in the Uganda National Development Plan III and Uganda Vision 2040.

Furthermore, the Uganda National Council for Science and Technology should mobilize and coordinate key stakeholders towards establishment of the National research agenda for climate smart technologies across sectors. Furthermore, to pursue a road map for implementation of the strategic actions for promoting climate smart technologies across sectors through the one programme approach stipulated in the Uganda National Development Plan III.

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