

Coherence of Agriculture, Energy, and Environment Policies: A Pathway to achieve a Green Economy and Sustainable Development in Tanzania

Contact: contact@cantz.or.tz

Key Messages

- ❖ Agriculture, Environment, and Energy are fundamental sectors form a strong foundation for green economy and sustainable development in Tanzania;
- ❖ The sectors are, however, at risk from human actions and natural challenges including climate change;
- ❖ Coherence of these particular sectoral policies is important in sustaining the country's economic achievements as well as moving beyond the lower middle-income status;
- ❖ Investment in clean and renewable energy technologies seems to be necessary in ensuring synergy of the particular policies to attain the green economic growth.

1.0 Introduction

In 2000, Tanzania launched the National Development Vision (TDV) which intends to transform the country into a middle income economy by 2025. TDV targets shifting to more sustainable agriculture, semi-industrialized and modernized economy which is well supported by highly productive activities in both rural and urban areas (Lunogelo et al., 2015). While the country has managed to achieve the lower middle-income status five years earlier as announced by the World Bank on 1st July 2020 (URT, 2020), the goal to achieve US\$ 3,000 per capita in the remaining five years shall be a challenging focus of TDV. It should be noted that the processes to achieve economic prosperity remain green to ensure sustainability. Green economic growth boards simultaneously with key sectors of economic performance, and those of environmental sustainability, such as

mitigation of climate change and biodiversity loss as well as security of access to clean energy and water (Buseth, 2019, p. 1). This policy brief argues that, the coherence of energy, environment, and agriculture policies in Tanzania is critical in realizing green economic potentials for achieving the TDV's goal and in enhancing climate resilient societies. These sectors form a strong economic foundation of the country and hence their correlation is necessary for sustaining the TDV's goals.

2.0 Agriculture, Environment and Energy Policies Synergy

2.1. Agriculture Policy on Energy and Environment Sectors

Agriculture is the backbone sector in Tanzania's economy which accounts for about half of the Gross Domestic Product

(GDP) and export earnings. It employs 77.5% of the population, delivers livelihoods to more than 70% and contributes to about 95% of the national food requirements (URT, 2017). Agricultural performance in the country is highly associated with the state of energy and environment. The sector is governed by the national agricultural policy which provides sectoral objectives and targets.

On Environment

The National Agricultural Policy of 2013 recognizes that agricultural development is strongly dependent on environmental resources such as land, forest, air, water and other resources (URT, 2013). Furthermore, the majority of farmers in Tanzania are smallholders who practice rainfed farming. Therefore, any change to the environment that alters the performance of rains is always affecting agriculture, food security and livelihood related aspects. On the other hand, agriculture is associated with land degradation, green house emission, deforestation and disturbance of the planet and ecosystem (Jia et al., 2019). The agricultural policy highlights that the sector is increasingly becoming more vulnerable to the impacts of climate change and variability and thus threatening the livelihoods of the majority of farmers. The IPCC special report indicates that, under both 1.5°C and 2°C scenarios of global warming, most of smallholder farmers in the Global South and in the east African region in particular will experience extended droughts, flooding due to above normal rains, limited water for irrigation—a situation that will lead to the failure of agriculture as a means of livelihoods. Because of this unexpected distress, communities will opt

to overutilize the available natural resources and this will increase degradation of resources and biodiversity. Nevertheless, the agricultural policy has only put more emphasis on dealing with climate change at the expense of other mentioned environmental aspects; hence lacking direct linkages between environmental policy objectives and statements.

On Energy

Despite the national energy policy being explicit on its resolve to promote agricultural development through supply of efficient and affordable energy, the current agricultural policy has unsatisfactorily made statements on the need for utilization of renewable energy sources in order to increase productivity as well as to promote environmental management. Renewable energy can play a substantial role in supporting agricultural productivity and sustainability through providing water for irrigation and storages. However, these opportunities are inadequately tapped and certain agricultural practices such as tobacco farming, for instance, continues to degrade the environment through massive expenditure of wood energy. The use of renewable energy by using solar driers could alleviate this problem and align with the objectives set in the national environmental policy of 1997 and energy policy of 2015.

2.2. Environment Policy on Agriculture and Energy Sectors

Tanzania's economic development is naturally reliant on environment and diverse natural resources' wealth which includes forests, water, marine and

freshwater bodies, wetlands, wildlife, land, energy sources, natural gas and minerals, among others (URT, 2019). These resources provide great opportunity for the country to maintain its development prosperity if they are rationally utilized and well managed. To make sure such natural resource base contributes significantly to the national development, Tanzania developed an environment policy (URT, 1997) which provides the framework for making fundamental changes that are needed to take environmental attention into the decision making for sustainable development.

On Agriculture

The National Environmental Policy has a link with sustainable agriculture and food security with a focus on continuous protection of the environment especially by reducing soil deterioration, preserving water catchments and mitigating actions that foster environmental deterioration. The policy also has an objective to contribute on food security and eradication of rural poverty through the promotion of production systems, technologies and practices that are environmentally sound. On the other hand, the environment policy informs that forest and woodland heritage is being reduced year by year through clearance for agriculture, for wood-fuel and for other domestic and commercial demands.

On Energy

Energy is one of the imperative components for socio-economic development and an important driver in environmental management. Unwise extraction and utilization of energy resources contribute on land degradation,

environment and ozone layer depletion. Renewable energy sources and technologies are considered as clean sources of energy that contribute to the development of green economy. The optimal use of these energy sources minimizes environmental impacts, produces minimum secondary wastes and are sustainable based on current and future economic and social needs (Panwar et al., 2011). Renewable energy utilization contributes to the environmental management by reducing the direct and indirect impacts through decreasing the natural resources extraction. The national environmental policy has laid out the contribution of energy sectors on the environmental degradation. Such contribution ranges from the exploration, production and utilization of petroleum, coal and uranium, uncontrolled use of wood fuel, combustion of fossil fuels, construction of hydropower dams and pipeline that negatively impact ecological and environmental systems. Although renewable energy is mentioned in the policy, it is neither given enough weight nor considered as a tool for environmental management. This policy brief calls for utilization of potential renewable energy in order to reduce the reliance on biomass (90% of the total energy in the country) and fossil fuel which accelerate environmental degradation and emission of greenhouse gases.

2.3. Integration of Energy Policy in Agriculture and Environment Sectors

The Tanzanian National Energy Policy recognizes energy as a necessary development ingredient and a cross-cutting sector for socio-economic growth.

This is highlighted as a crucial aspect towards achieving a desired socio-economic development that includes the availability, affordability, sustainability, reliability and accessibility of modern energy services (URT, 2015). The energy policy recognizes the country's huge resource base of renewable resources such as wind, solar, biomass, small-scale hydro, geothermal, tidal, waves, and ocean thermal conversion. It has set out an objective of enhancing utilization of renewable energy resources so as to increase its contribution in diversifying resources in generation of electricity for green and sustainable development. Despite the resource richness and presence of policy objective, the government has put more emphasis in investing on non-renewable energy such as fossils (Tanga-Hoima pipeline), Coal in Kiwira and Hydro Power (H.E.P) which is susceptible to environmental degradation and climate change challenges. However, enforcement of environmental management regulations (2009) on Environmental Impact Assessments (EIA, ESIA, and EA) is critical to ensure sustainable development.

On agriculture

The energy policy states its commitment to contributing on promoting agricultural development through the supply of efficient and affordable energy (URT, 2015). The policy heartens energy efficiency use in irrigation, agro-processing and the search for alternative, more-affordable energy sources such as solar, wind and biogas for the development of the agricultural sector. However, the policy has not taken precautionary statements on how agricultural activities in the country could

have negative impacts on biomass utilization and H.E.P generation due to overconsumption of forest resources and water resources.

On environment

The energy policy targets to make effective exploitation and utilization of environmental unfriendly energy resources such as coal at Kiwira and Ngaka mines, petroleum, and uranium in Ruvuma and Dodoma for rapid economic development. Investments in these energy sources might contribute to the short-term economic growth but they are not good for a green, sustainable and resilient economy.

3.0 Conclusion and Recommendations

Tanzania deserves appreciation for its economic triumphs which have awarded it a middle-income status since July 2020. Such economic celebrations however need to go parallel with extra interventions which will help to maintain the stability of the economy and move forward sustainably into an advanced economic status. Green economic development pathways are among the necessary initiatives to move the country's status ahead in which environment, agriculture and energy are the key sectors which seem to offer potentials in sustaining a green economy. In order to make use of these sectors and have long-term economic impacts, the respective policies need to have coherence and alignments. To achieve this, this policy brief recommends the following:

- Renewable energy should be considered in policies as an important component and as a cross-

cutting issue necessary for green economy and sustainable development;

- The government of the United Republic of Tanzania should prioritize and increase the use of renewable energy in spurring long-term socio-economic growth and increase resilience to the adverse impacts of climate change;
- Development of national renewable energy policy or strategy is unavoidable if Tanzania envisions to make further economic steps and realize sustainable development;
- The Tanzanian government needs to develop a strategic mechanism to motivate and increase the utilization of clean renewable energy so as to fuel the green economy development.

4.0 References

Buseth, J. T. (2019). The green economy in Tanzania: From global discourses to institutionalization. *Geoforum*, 86(September 2017), 1–11. <https://doi.org/10.1016/j.geoforum.2017.08.015>

Lunogelo, H. B., Saibul, G. O., Mashindano, O., & Watkiss, P. (2015). *Green economic growth and the opportunities for the 5 year development plan and the long term plan. Policy Brief*. Retrieved from <http://esrf.or.tz/docs/GreenEconomic->

Growth.pdf

Panwar, N. L., Kaushik, S. C., & Kothari, S. (2011). Role of renewable energy sources in environmental protection: A review. *Renewable and Sustainable Energy Reviews*, 15, 1513–1524. <https://doi.org/10.1016/j.rser.2010.11.037>

URT. (1997). *National Environmental Policy*. Dar es Salaam: United Republic of Tanzania, Vice President's Office.

URT. (2013). *National Agriculture Policy*. Retrieved from http://www.tzdpd.or.tz/fileadmin/documents/dpg_internal/dpg_working_groups_clusters/cluster_1/agriculture/2._Ag_policies_and_strategies/National_ag_policies/1._2013_NATIONAL_AGRICULTURAL_POLICY_-_FINALFebruari_2013.pdf

URT. (2015). *National Energy Policy 2015*. Dar es Salaam: Ministry of Energy, United Republic of Tanzania.

URT. (2017). *National Climate-Smart Agriculture Guideline*. Retrieved from [https://www.kilimo.go.tz/uploads/statistics/National_CSA_Guideline\(1\).pdf](https://www.kilimo.go.tz/uploads/statistics/National_CSA_Guideline(1).pdf)

URT. (2019). *State of the Environment Report 2019*. Retrieved from https://www.vpo.go.tz/wp-content/uploads/2020/04/State-of-Environment_Third-Report-2019.pdf

URT. (2020). Taarifa kwa Umma Kuhusu Tanzania Kuingia kwenye Kundi la Nchi za Kipato cha Kati. Retrieved October 9, 2020, from Ministry of Finance and Planning, United Republic of Tanzania website: <https://www.mof.go.tz/docs/TOVUTI STORY TANZANIA KUINGIA UCHUMI WA KATI.pdf>

Coalition Members

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