

Promoting Green Economy in Tanzania: A Pathway to Sustainable Development

Key Policy Messages:

- A need to formulate a comprehensive and practical Green Economy Policy and strategies to implement existing policies relating to the environment and green economy.
- Since Extractive Industries Transparency Initiative (EITI) promotes the utilization of natural resources for sustainable development, the initiative should be replicated in other sectors such as manufacturing and agriculture.
- Promoting ecotourism will add more value to the sector as evidence shows that global spending on ecotourism is increasing at a higher rate than the industry-wide average growth.
- Environmental and green economy regulations should be clarified to MSMEs to stimulate the adoption of green practices by these institutions, which account for more than 90% of the country's business profile.
- If young people are provided with the right training schemes to work in the conservation programs (both land and marine), more jobs will be created, and inclusive resource management will be enhanced.
- There is a need to increase advocacy programmes to promote the green economy and green growth agenda among the public and marginalized groups, particularly women and youths.

Introduction

Despite remarkable rates of economic growth in the 2015-2020 period, Tanzania continues to face persistent poverty, particularly among marginalized groups of women and youths. At the same time, the potential for future economic growth and development itself is put at risk as a result of environmental degradation, climate change, desertification and other environmental risks. SDG no. 1, "Ending poverty in all its forms, everywhere", is the most ambitious goal set by the 2030 Agenda. Tanzania, being a member of the UN, must institute serious measures in harnessing the green economy in order to achieve SDG no. 1. Reversing the process of unsustainable development requires policy analysis to ensure that policies incorporate the full costs and benefits of environmental impacts.

Thus, this brief presents a summary of findings to examine important policy gaps that should be filled to enable Tanzania to lead a pathway to sustainable development and poverty eradication. The brief uses a comprehensive analysis of research reports and databases from World Bank, Bank of Tanzania, MoFP, SAGCOT, CGIAR, REDD, and other researchers. Moreover, stakeholder engagement was made in five regions of Mwanza, Dodoma, Arusha, Dar es Salaam and Iringa.

Natural Resources: The Heart of Tanzania's Economy

Tanzania hosts one of the largest populations in Africa, with approximately 21 million Tanzanians living below the poverty line, many of which depend on natural resources for their livelihoods. Natural resources form a core pillar of the Tanzanian's economy and play a pivotal role in sustaining the livelihood of its population. For example, statistics show that:

- agriculture and fisheries represent about 30% of the country's GDP;
- before the COVID-19 pandemic, the total GDP contribution of the travel and tourism sector, which is largely based on biodiversity and wildlife, was about 13% in 2019 and grew at a rate of 7% p.a. The sector's total contribution to employment was about 12%;
- over 10 million people directly depend on the integrity of coastal and marine resources for their livelihood; and
- natural resources-based exports, including traditional goods, constitute more than 40% of the total exports.

This rich natural endowment and the strong inter-linkages between the natural economy and the environment provide a unique, rapidly shrinking opportunity for Tanzania to harness its natural resources in a way that enable sustained, long-term benefits for its people. The exploitation of these resources has fostered rates of economic growth, which in recent years have been among the strongest in Africa.

However, several trends suggest that the country is shifting towards an unsustainable development trajectory as a result of environmental degradation, climate change, desertification and other environmental risks which are driven by internal and external factors. The natural capital, an essential basis for wealth creation, faces mounting pressure at a time when Tanzania needs to meet the growing demand for water, food and health whilst reducing poverty and stimulating economic activity to create employment and raise income.

Nonetheless, Tanzania's wealth per capita has declined despite robust and sustained economic growth in absolute terms. The decline in wealth is caused by rapid population growth, which has outpaced investment. This calls out for the stakeholders to address the green economy as a matter of policy urgency. Tanzania's development path should maintain and rebuild natural capital as a critical economic asset and source of public benefits, especially for poor people whose livelihoods depend strongly on nature.

Green Economy Initiatives in Tanzania

The concept of a Green Economy has emerged recently, advocating a holistic and programmatic approach among the three pillars of sustainable development - economy, social welfare and the environment. Tanzania has no specific national policy or strategy for a green economy; however, different national policies have elements that promote a green economy and sustainable development. These include the National Environment Policy (NEP, 1997); the Environmental Management Act, 2004; mainstreaming the environment into the national strategies such as the Five Year Developing Plans (i.e. FYDP I, II and III), the then national strategy for growth and reduction of poverty (MKUKUTA); mainstreaming the environment into sectoral legislation policies and strategies (i.e. agriculture, livestock, water and sanitation, health, transport, energy, human and settlement, industry, tourism, wildlife, forestry, fisheries, women and gender, child development), and ratifying various global and regional conventions of relevance to the environment and sustainable development.

Apart from that, other Green Economy initiatives made include:

- Promotion of improved, low-cost and environmentally friendly technologies and practices. These include low-cost greenhouses, Waxy II Technology, solar photovoltaic technology, affordable solar home systems, and UNEP innovative, low-cost decentralized water treatment systems.
- Participatory natural resources management such as the Participatory Forest Management Programme (PFM).
- Tax exemptions to environmentally friendly products and equipment such as solar systems.
- Levies and penalties (e.g., Imposition of excise duty of 20% on imported used non-utility motor vehicles aged ten years or more; On-the-spot penalty for littering)
- Increased involvement of the private sector in providing public services (e.g., Privatization of large farms with the aim of promoting irrigation and large-scale farming to improve food self-sufficiency and export of farm products and create employment opportunities in the sector).
- Public Private Partnerships (PPPs) such as The Southern Agricultural Growth Corridor of Tanzania (SAGCOAT) aim to mobilize 3.5 million USD in investments by 2030 to help Tanzania transition to a green economy.

Achievements

Tanzania has made several milestones in fighting for the sustainability of its natural resources. For example, Tanzania's National Report for the United Nations Conference on Sustainable Development, Rio+20 of 2012,¹ provides important achievements made in green economy initiatives by stakeholders. They include the following:

- The application of Integrated Pest Management (IPM) in agriculture, particularly in cotton, has resulted in a 50% reduction in pesticide use and reduced environmental impacts
- Increase in the use of renewable energy whereby there is a relative increase in the use of solar power for domestic purposes, especially in rural areas, as well as wind power, especially in pumping groundwater. To date, it is estimated that about 1.2 MWp of PV has been installed.
- Countrywide for various power applications and 30-40% of the total installed capacity is contributed by solar home systems. The Establishment of the Cleaner Production Centre of Tanzania (CPCT) to promote cleaner production technologies and techniques in industries.

¹ The report is available at <https://sustainabledevelopment.un.org/content/documents/980tanzania.pdf>

- More than 25 Dar es Salaam based industries have switched to natural gas instead of fuel oil.
- Improvement of energy efficiency in existing manufacturing plants with potential savings ranging from 15-40%.
- Adoption of ozone-friendly technology whereby four industries producing polyurethane foams have switched to non-ozone-depleting substances.
- Increased water supply and accessibility through the use of various sources of water such as rainwater harvesting, protected wells and boreholes.
- Access to basic sanitation is high, with 85% using pit latrine and 5% using ventilated Improved Pit (VIP) latrine.
- Successful conservation of wildlife through protected areas and community involvement through WMAs.
- Diversification of tourism, including community based tourism.

Case: Sustainable Charcoal Production and Use

Since 2012, the Tanzania Forest Conservation Group and MJUMITA² have successfully assisted 30 villages in the Morogoro region towards integrating sustainable charcoal production into the management of village forest reserves. Approximately 10% of the area of each village forest reserve is designated for charcoal production. The remaining 90% is for protection, beekeeping and, in some cases, selective timber harvesting. Grazing of livestock is controlled, and agriculture is prohibited. The harvesting rotation period is 24 years. This means that an area harvested in the first year will only be harvested again after 23 years. The charcoal areas are divided up into 50m x 50m blocks known as 'coupes'. 4% of these coupes can be harvested each year. The average yield per coupe is calculated based on an assessment of available biomass. The sustainable yield per coupe multiplied by the number of coupes harvestable per year establishes the annual charcoal quota and potential revenue for the village. Potential annual village revenues range from about USD 4,000 to USD 23,000 per village. Trees are cut at knee height (~50 cm), leaving behind a stump and the roots, encouraging coppicing. Sustainable charcoal producing villages earned cumulative revenue of USD 200,000 between June 2013 and September 2018 from the fees (this is in addition to the income earned by the producers). How the revenue to the village is spent is decided in village assembly meetings.

Challenges

Despite the fact that the country has been implementing international environmental and other sustainable development commitments, the achievement of existing efforts has been constrained by various factors. Such factors include, among others, inadequate environmental management awareness among key stakeholders, insufficient resources to adequately address environmental and sustainable development issues as well as lack of efficient and effective alternative sources of energy to reduce the dependency on forest resources as the main source of energy, and inadequate awareness on sustainable agriculture and livestock keeping practices.

Critical environmental and natural resources obstacles (*see Table 1 below*) that are influencing the country's sustainable development and poverty reduction efforts include:

- Deforestation and forest degradation
- Land degradation
- Degradation of water resources
- Loss of biodiversity
- Freshwater and marine fisheries depletion
- Climate change

As a result of this, the government has not been able to meet the Five Year Development Plan (FYDP II) environmental targets such as (i) energy driven from renewable resources to be 50% or higher by 2021; (ii) natural forest cover to be 130,000 *ha* or larger by 2021; and (iii) charcoal consumption in urban areas to be 60% or lower.

Instead, by 2019, Tanzania had the highest annual forest net loss area in East Africa and the 5th highest annual forest net loss in the World with an area loss of 372,000 *ha*/year; an estimated 85% of Tanzania's energy needs are met through biomass use; and 88% of households in Dar es salaam use charcoal. Other statistics that indicate Tanzania's natural resources are degrading and that the country's future sustainability is at stake include:

² MJUMITA stands for Mtandao Wa Usimamizi wa Misitua Tanzania is a national network of community-based forest management groups established in 2000 by the Tanzania Forest Conservation Group to provide a networking and advocacy forum for communities involved in Participatory Forest Management (PFM). The Sustainable Charcoal Production and Use Casestudy provided above was reported by World Bank (2019), *Tanzania Country Environmental Analysis*.

- Between 70% and 80% of the country's deforestation is estimated to result from converting forest land to agricultural land caused by poor extension services.
- 2/3 of the country's drylands are seriously degraded.
- The agro ecological zones in the plateau, semiarid and Southern highlands, are far more degraded than any other agro-ecological zones in the country.
- Tanzania has the second-highest number of threatened species in Africa.
- Tanzania's renewable per capita freshwater resources have declined from more than 3,000 m³ in the nineties to around 1,600 m³ in 2014, which is less than 1,700 m³ per capita, the threshold below which a country is considered water-stressed by the United Nations.
- Economic cost of premature deaths attributed to pollution is over USD 28.7 billion.
- Net economic costs from climate change will be equivalent to 1%-2% of GDP per year by 2030.
- The total renewable natural capital per capita has fallen by 35% over the past 20 years, whereas the non-land renewable natural capital per capita has declined by 47% (i.e. almost halved in 20 years).
- Water shortages are ongoing in Dar es Salaam as of Nov. 12, 2021, due to a decrease in water levels caused by drought. Dar es Salaam Water and Sewerage Authority (DAWASA) announced a decrease in water pressure by 12%, with daily rationing lasting for 12 hours depending on the area of the location.
- Tanzania Meteorological Authority (TMA) recently issued a warning over rising temperatures caused by overhead sun and droughts around the country. According to EOCED (2020), the temperature in Tanzania is projected to rise by between 1.4 and 3.6 °C by 2080, compared to pre-industrial levels, with higher temperatures and more temperature extremes projected for the east of the country.

Table 1: Obstacles Hindering Green Economy in Tanzania

Issue	Major Causes	Major Consequences
Deforestation and forest degradation	-Agricultural expansion. -Fuelwood harvesting and charcoal production. -Increasing demand/population growth.	-Reduced Environmental Services. -Loss of ecosystem services. -Soil erosion, water loss and water pollution.
Land degradation	-Agricultural expansion. -Inefficient farming practices. -Overgrazing. -Deforestation.	-Loss of soil fertility. -Reduced food production. -Desertification.
Degradation of water resources	-Excessive agricultural use. -Uneven distribution. -Increasing competing water demand/population growth.	-Water scarcity. -Reduced water quality.
Loss of biodiversity	-Habitat loss and degradation. -Poaching. -Overexploitation.	-Loss of tourism income. -Reduction of food supplies. -Loss of ecosystem services.
Freshwater and marine fisheries depletion	-Overfishing. -Degradation of the aquatic environment. -Destructive fishing methods.	-Reduced food production. -Economic losses. -Unemployment.
Climate change	-Worldwide increase in emissions of greenhouse gases. -Deforestation.	-More frequent extreme weather events. -Reduced food security. -Environmental and human health issues.

Source: World Bank (2018)

Policy Gaps

- Inadequate implementation of the existing laws and policies relating to the green economy.
- Poor coordination between different institutions and ministries dealing with environmental issues.
- The green economy has not been fully integrated into business models.
- There are no policies to harness local green technology.

- Inadequate inclusion of marginalized groups in the existing green economy-related policies.
- Rules and policies on public procurement have not incorporated elements of environmental screening,
- Inadequate mainstreaming of Micro, Small and Medium Enterprises (MSMEs) in the green economy agenda.
- Local content policies, especially in the extractive industry, have not incorporated the green economy agenda.
- The current incentives and subsidy frameworks do not consider green economy issues.
- Extractive Industries Transparency Initiative (EITI) has been instrumental in promoting the sustainability of natural resources; however, the initiative has only focused on the extractive industry.
- Low level of public awareness regarding the green economy.

Policy Recommendations

- Formulate a comprehensive and practical Green Economy Policy.
- Design implementation strategies of the existing policies relating to the environment and green economy.
- A thorough review of subsidies and incentives to integrate green economy strategies and ensure green investment.
- Since Extractive Industries Transparency Initiative (EITI) promotes the utilization of natural resources for sustainable development, the initiative should be replicated in other sectors such as manufacturing and agriculture.
- The promotion of “green” products is also important.
- Open up the power generation sector to Independent Power Producers (IPPs) to promote green and decentralized private sector-led solutions to energy access.
- Revise financial sector regulations so that large investment projects that harness the green economy can access private funding.
- Promote academic partnership and cross border higher education exchange programs to facilitate technology transfer.
- Promote tourism as evidence shows that global spending on ecotourism is increasing at a higher rate than the industry-wide average growth.
- Construct meteorological monitoring telemetry stations that could support national and regional weather forecasting capabilities that would help farmers to determine the best times for planting, fertilizer applications, harvesting and other critical weather-sensitive activities. These will also increase climate adaptation in areas affected by floods or drought.
- Increase the use of sustainable water use strategies such as drip irrigation systems, pressurized water pipe and sprinkler systems and the use of manual treadle pumps in order to increase water reservoirs and reduce water scarcity.
- Rules and policies on public procurement should incorporate elements of environmental screening.
- Revise the Local content policies, especially in the extractive industry, to incorporate the green economy agenda.
- Enhance coordination among institutions dealing with green economy issues in both the central government and LGAs.
- Collaborate with business and trade associations to clarify regulations and stimulate the adoption of green practices among MSMEs.
- Provide young people with the right training schemes to work in the conservation programs (both land and marine) for job creation and inclusive resource management.
- Conduct advocacy programmes to promote the green economy and green growth agenda among the public and marginalized groups, particularly women and youths.

About the author

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