DEPARTMENT OF
ECONOMIC AND
SOCIAL AFFAIRS

Developing the strategic guidelines for climate financing, considering possible linkages between climate financing and post COVID-19 agricultural development in Tanzania

Report of the DESA project, "Strengthening the capacity of least developed countries to develop evidence-based, coherent and well financed strategies to implement the 2030 Agenda"

December 2021

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Acronyms

AfDB African Development Bank

CCM Chama Cha Mapinduzi

CDM Clean Development Mechanism

COP Conference of Parties

CRS Creditor Reporting System

CSO Civil Society Organisation

DFID Department for International Development (DFID)

DoE Department of Environment

DPG Development Partner Group

ENVIRONET The Network on Environment and Development Co-operation

EU European Union

GBS General Budget Support

GEF Global Environment Facility

GoT Government of Tanzania

IDRC International Development Research Centre

IFAD International Fund for Agricultural Development

IFMS Integrated Financial Management System

IRA Institute of Resource Assessment (University of Dar Es Salaam)

JAST Joint Assistance Strategy Tanzania

JET Journalists Environmental Association

LDC Least Developed Country

LGA Local Government Authority

MDGs Millennium Development Goals

MMS Mkukuta Monitoring System

MTEF Medium Term Expenditure Plan

NAPA National Adaptation Programme of Action

NEMC National Environment Management Council

NPES National Poverty Eradication Strategy

NSGRP National Strategy for Growth and Reduction of Poverty

ODA Overseas Development Assistance

OECD DAC Organisation for Economic Cooperation and Development - Development Assistance Committee

PBA Programme Based Approach

PER Public Expenditure Review

PIU Project Implementation Unit

PMO-RACG Prime Minister‟s Office Regional Administration and Local Governance

REDD Reducing Emissions from Deforestation and Forest Degradation in Developing Countries

SEKAB Svensk Etanolkemi of Sweden

SWAp Sector Wide Approach

UN United Nations

UNDP United Nations Development Programme

UNFCCC United Nations Framework Convention on Climate Change

VPO Vice President‟s Office

WP-EFF OECD DAC Working Party on Aid Effectiveness

ZSGRP Zanzibar Strategy for Growth and Reduction on Poverty

I: Introduction

The extent and status of climate resources of Tanzania;

Climate vulnerabilities: The destructive impact of climate change is in evident in 60 per cent of the country in the form of droughts, floods, sea level rise and increased water-borne diseases. Tanzania's economic growth depends heavily on its environmental and natural resources, with more than 80 per cent of the population dependent on them for income generation. Critical challenges threaten these resources, including their unsustainable harvesting and use, unchecked cultivation practices, degradation of and encroachment on water sources, and the impacts of climate change and extreme weather events.

National response: The government sees an urgent need to protect and manage the environment and its natural resources in the face of climate change. In 2012, Tanzania launched its National Climate Change Strategy covering adaptation, mitigation and cross-cutting interventions. The strategy also the importance of establishing institutions and policies for climate change planning at the national level, including a climate change finance mechanism. With UNCDF support, Tanzania has both an efficiently functioning system of local governments and a well-developed intergovernmental fiscal transfer system, which has introduced performance-based elements over the past decade. A policy of decentralization by devolution gives local governments significant roles and responsibilities in implementing government policies and programmes.

Tanzania is one of the largest countries in East Africa, with diverse topography that gives rise to four distinct climate zones. Most of the population lives in rural areas that are dependent on rainfed agriculture which is threatened by increasing temperatures, longer dry spells, and intense rain events. Much of the population also depends on coastal and inland fisheries, which are vulnerable to sedimentation as well as warming ocean and freshwater temperatures. Despite abundant water resources, Tanzania experiences spatial and temporal water scarcity, which will be exacerbated by climate impacts on the country's nine major river basins and the continent's three largest lakes. These factors also increase risks for the country's hydropower system. Diarrheal diseases and malaria, both leading causes of death in Tanzania, are likely to escalate, particularly in urban settlements where poor infrastructure increases vulnerabilities to flooding and heat extremes. Tanzania's highest emitting sector is land-use change and forestry, followed by agriculture.

II. Climate change vulnerability

2.1 Climate change vulnerability in general

Climate change in Tanzania is affecting the natural environment and residents of Tanzania. Temperatures in Tanzania are rising with a higher likelihood of intense rainfall events (resulting in flooding) and of dry spells (resulting in droughts).Water scarcity has become an increasing problem and many major water bodies have had extreme drops in water levels, including Lake Victoria, Lake Tanganyika Lake Jipe, and Lake Rukwa. Tanzania's agricultural sector, which employs over half of the population, is particularly vulnerable as farmers are predominantly dependent on rain fed agriculture. On the other hand, increasing intense rainfall events have resulted in flooding across the region, which has damaged infrastructure and livelihoods.A high percentage of the population of Tanzania lives along the coast and are dependent on fisheries and aquaculture. Sea level rise and changes in the quality of water are expected to impact these sectors and be a continued challenge for the country.

Tanzania produced a National Adaptation Programmes of Action (NAPAs) in 2007 as mandated by the United Nations Framework Convention on Climate Change. The NAPA identifies the sectors of agriculture, water, health, and energy as Tanzania's most vulnerable sectors to climate change. In 2012, Tanzania produced a National Climate Change Strategy in response to the growing concern of the negative impact of climate change and climate variability on the country's social, economic and physical environment. In 2015, Tanzania submitted its Intended Nationally Determined Contributions (INDC).

Impacts of Climate Change on the natural environment

Fishing boat off Dar es Salaam - fishing will be affected by changes to ecosystems due to climate change. Between 1981 and 2016 there are marked areas of drying in parts of northeast and much of southern Tanzania. In contrast, moderate wetting trends occurred in central Tanzania and stronger wetting trends in the northwest of the country. A clear warming trend is apparent in annual temperature. By the 2090s projected warming is in the range of 1.6 to 5.0 °C, also evenly distributed across the country. For rainfall there is strong agreement for decreases in the mean number of rain days and increases in the amount of rainfall on each rainy day (the 'rainfall intensity'). Taken together these changes suggest

more variable rainfall, with both higher likelihood of dry spells (such as droughts) and a higher likelihood of intense rainfall events (often associated with flooding).[Climate change impacts of severe droughts, floods, livestock deaths, crop failures and outbreak of disease (such as cholera and malaria) are likely to be regularly observed.

Impacts of Climate change on Agriculture

Agriculture (including livestock) is the dominant sector in the Tanzanian economy, providing livelihood, income and employment. It is also identified as the sector most vulnerable to climate change. An increase in temperature by 2 °C - 4 °C is likely to alter the distribution of Tanzania's seven agro-ecological zones. Areas that used to grow perennial crops would be suitable for annual crops. Climate change would tend to accelerate plant growth and reduce the length of growing seasons. Vulnerability in the agricultural sector is likely to include decreased crop production of different crops exacerbated by climatic variability and unpredictability of seasonality, erosion of natural resource base and environmental degradation.

It should be noted that crop yields are both affected by heating and increased variability. An increase in temperature by 2 °C during the growing season as projected by 2050 will likely reduce yields of rice, sorghum and maize by 7.6%, 8.8% and 13% respectively in Tanzania. A 20% increase in precipitation variability between seasons was found to decrease yields of rice, sorghum and maize by 7.6%, 7.2% and 4.2% respectively by 2050. For example a severe drought in Dodoma Tanzania in recent years, resulted in an 80% decrease in harvest.

Health impacts

There are a number of climate-sensitive diseases in Tanzania that may become more prevalent during drought and flooding. Water related diseases such as cholera and malaria may increase in Tanzania due to climate change.In parts of Tanzania, cholera outbreaks have been linked with increased rainfall. Cholera outbreaks in North East, South East, Lake Victoria basin and coastal areas of Tanzania were due to high rainfall. Research has also shown that initial risk of cholera increased by 15% to 19% for every 1 °C temperature increase. It was further projected that in 2030 the total costs of cholera attributable to climate change variability will be in the range of 0.32% to 1.4% of national GDP for Tanzania.

The incidence of malaria are known to be highest during heavy rainfall and high temperatures as it makes mosquitoes' habitats (such as ponds, pools, wells or bores, streams, rivers and canals) suitable breeding sites. For example, a study conducted in Lushoto district, Tanzania, reported that malaria cases were prominent during high rainfall seasons and there was a link to an increase in temperatures.

III. Climate finance overview

3.1 Global Climate Finance Status

Despite its common use, the term 'climate finance' has no agreed definition. The United Nations Framework Convention on Climate Change (UNFCCC) defines climate as local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change.

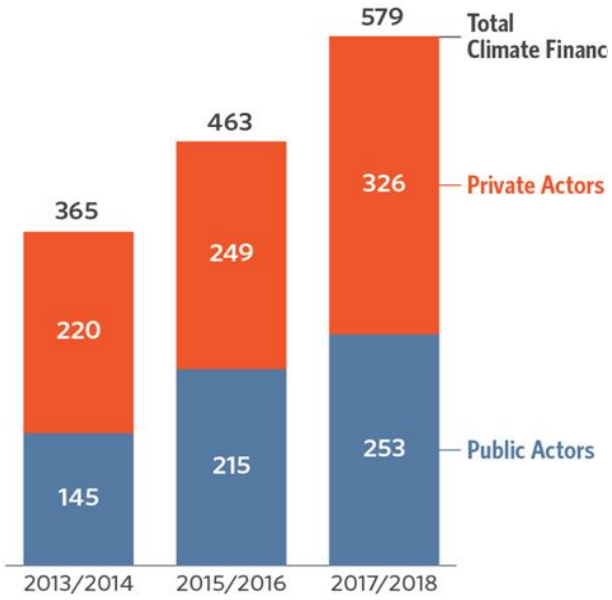
According to the Global Landscape of Climate Finance 2019 Report average annual public climate finance[1]made USD 253 billion in 2017/2018, representing 44% of total commitments. Disbursements on transport overtaken renewable energy to become the largest beneficiary of public finance, accounting for 37% of the public total. Large sums of public money were dedicated to adaptation and resilience, energy efficiency, land use, and projects with cross-sectoral impacts**.** Domestic, bilateral, and multilateral development finance institutions (DFIs) account for the majority of public finance in 2017/2018. National DFIs continued to be the largest providers of climate finance among DFIs. Climate finance provided by governments and their agencies doubled to USD 37 billion in 2017/2018.

Private finance[2] reached USD 326 billion on average annually in 2017/2018 account for the majority of climate finance, at around 56%. Of this quantity, 85% flowed to renewable energy, 14% to low-carbon transport, and under 1% to all other subsectors. Summary figures of private and public global climate finance are presented in *Figure 01 Breakdown of global climate finance by public and private actors, 2013-2018 (two-year average, USD billion)*.

[1] Public finance includes funds provided by governments and their agencies, climate funds, and development finance institutions (DFIs).

[2] The Global Landscape of Climate Finance 2019 Report consider five categories of private actors: households, non-financial corporations (project developers and other corporate actors), commercial financial institutions (banks), institutional investors (including asset managers, insurance companies, and pension funds), and a mixture of private equity, venture capital, and infrastructure funds.

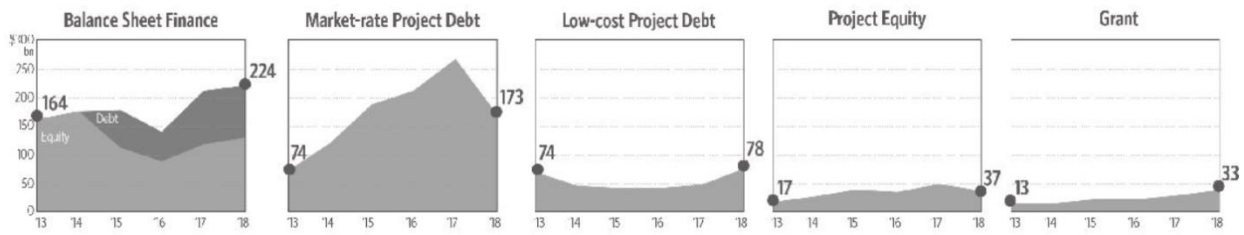
Figure 1: Breakdown of global climate finance by public and private actors, 2013-2018 (two-year average, USD billion)



Source: The Global Landscape of Climate Finance 2019 Report

Market-rate debt was the financial instrument used to channel the most climate finance in 2017/2018, averaging USD 316 billion annually.70% of this debt was provided at the project level, while the remaining 30% was balance sheet borrowing. An additional USD 64 billion in debt was issued as low-cost project debt, bringing the total debt issued for climate financing in 2017/2018 to an annual average of USD 380 billion, or 66% of all tracked finance. The second-largest instrument type as a percentage of tracked climate finance was equity, at 29%, averaging USD 169 billion annually. Grants accounted for 5% of total climate finance per year in 2017/2018. Almost all grants were issued by the public sector, focusing on geographies and sectors underserved, e.g. low-carbon transport sector, agriculture, forestry, land use, and natural resource management sector. Breakdowns of climate finance by instrument are shown in Figure 2.

Figure 2: Breakdowns of climate finance by instrument (USD billion)



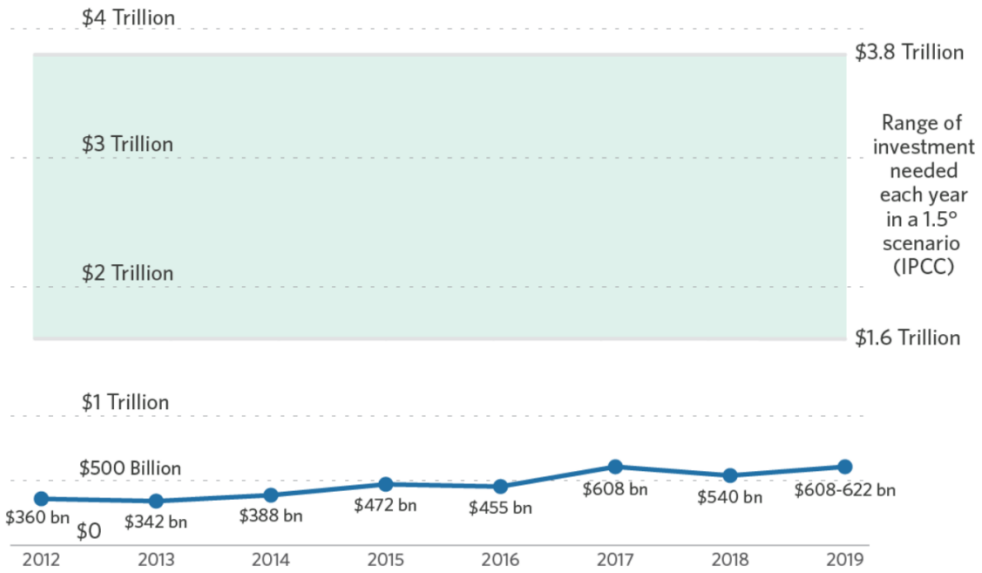
Source: The Global Landscape of Climate Finance 2019 Report

Climate finance flows to two primary use categories: mitigation and adaptation. Mitigation activities accounted for 93% of climate finance tracked in the Landscape in 2017/2018, averaging USD 537 billion per year. Renewable energy generation, at 63% of mitigation finance, accounted for the largest portion of mitigation flows captured in 2017/2018, while another 26% went to low-carbon transport and 6% to energy efficiency.

Adaptation finance gained momentum in 2017/2018, increasing 35% to an annual average of USD 30 billion from 2015/2016, although adaptation still accounts for just 5% of followed climate finance based on available data. Almost all adaptation finance tracked in the Landscape was funded by public actors. Public adaptation finance was distributed across three sectors – water and wastewater management (32%), agriculture and land use (24%), and disaster risk management (22%).

Overall, the global climate finance shows steady growth, but remains far below the levels needed, as per illustrated in Figure 3: Global climate finance gap. To reach 1.5-degree pathway by 2050, over USD 1.6 to 3.8 trillion in new climate investment is required. To reach this target, current investment trends need to significantly shift towards low emissions and carbon resilient development.

Figure 3: Global climate finance gap

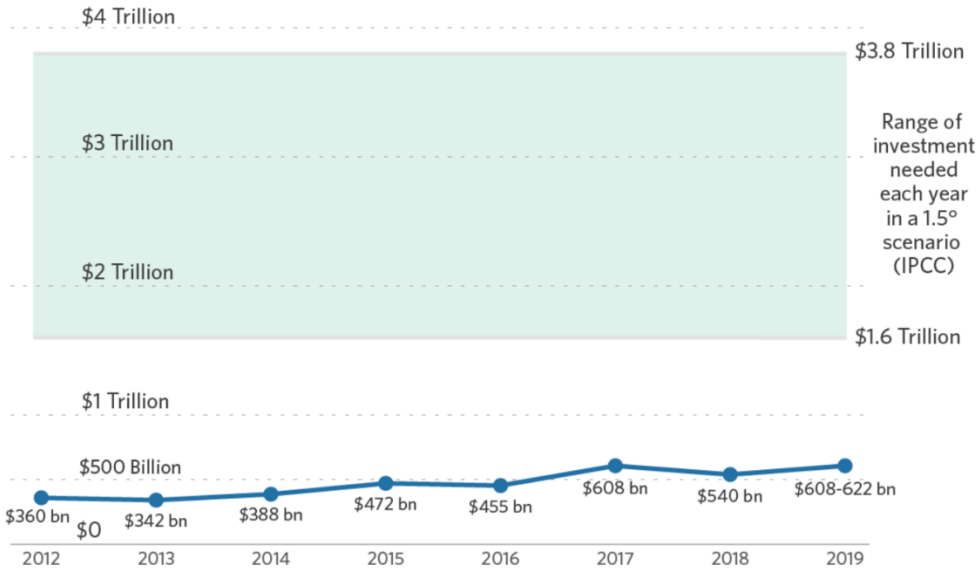


Source: Updated view on the Global Landscape of Climate Finance 2019, Climate Policy Initiative.

The ongoing COVID-19 pandemic and the resulting socio-economic crisis make this task even more challenging. COVID-19 has, in a short time, intensified existing vulnerabilities and inequalities. The
pandemic has pressed several countries to embrace measures to reduce its potential of becoming a full-scale crisis and also created new budgetary pressures on all countries, with urgent redistribution of funds towards health sectors. This could stretch public finances, threatening the green deals. As countries continue to address the socio-economic impacts of the COVID-19 crisis, there is a risk that economic recovery stimulus packages designed to save economies could undermine environmental sustainability[3]. Ambitious and innovative policies for sustainable recovery and even greater collaboration among public and private actors will be needed to achieve climate goals[4].

[3]Shipalana, P., Chigwenya, C. (April 2021). *The Impact of COVID-19 on Climate Finance and Green Development.*
[4] Climate Policy Initiative (2020). *Updated view on the Global Landscape of Climate Finance 2019*

Figure 1: Global climate finance gap



3.2 Tanzania Climate Status

IV. Key stakeholders in the climate change and environment sector

Key government and Development partner stakeholders in the climate change and environment sector are presented as follow:

Major stakeholders in the climate change and environment sector including their roles and responsibilities;

Major stakeholders includes:

- Vice President's Office (Environment DIVISION)
- Ministry of Finance and Planning
- Ministry of Agriculture
- Ministry of Livestock and Fisheries Development
- President's Office, REGIONAL GOVERNMENT AND LOCAL GOVERNMENT MINISTRY.
- TANZANIA METERELOGICAL AUTHORITY (TMA)

4.2 Development Partner Stakeholders

African Development Bank (AfDB): AfDB provided support to the government to develop the Decree on Climate Change 2019. It is supporting the Climate-Friendly Agribusiness Value Chains Sector Project which aims to help farmers and agribusinesses develop sustainable and climate-smart agriculture value chains in the country. Initiative aims to kick start countries' low-emission investments to support economic recovery following COVID-19. By catalyzing increased climate finance from both the private and public sectors, AfDB helps Tanzania to ensure that environmental conservation is taken care of in line with economic development.

Deutsche Gesellschaft fürInternationaleZusammenarbeit (GIZ): GIZ is supporting the Tanzania Government in developing regulations and laws relating to land policy and land rights. GIZ also advises the Government on sustainable forestry and the effective management of protected areas with a view to reducing deforestation and loss of biodiversity as well as promoting implementation of global climate change mitigation mechanisms.

Food and Agriculture Organization of the United Nations (FAO): The FAO support is carried out through a series of projects oriented around four country outcomes: (a) fostering agricultural production and rural development; (b) improving food security and nutrition, with special focus on the most vulnerable; (c) protecting and enhancing forests and other ecosystems; and (d) improving capacity to respond to food and agricultural threats and emergencies and to climate change impacts.

Global Green Growth Institute (GGGI): GGGI together with the World Bank (WB) supported the government in Tanzania to develop a National Green Growth Strategy (NGGS), which provide policy direction on the mainstreaming of green growth into national, sub-national, and sector strategies and policies. GGGI also supported MONR to revise the Tanzania and put forth more ambitious mitigation targets, including a national commitment on the 2050 Net Zero Emission.

United Nations Development Programme (UNDP): UNDP has sought to explore the links between poverty, livelihoods, environment and climate change through a number of initiatives on forest and land management through people’s participation, climate change adaptation measures in rural small scale

infrastructures and farming, biodiversity conservation, rural energy, and disaster management and recovery[5].

United Nations Environment Programme (UNEP): Though not physically present in Tanzania UR, UNEP has provided number of support to Tanzania UR. UNEP is support the government to develop National Adaptation Plan (NAP) through a LDCF project on "Building the Capacity of the Tanzania Government to Advance the National Adaptation Planning Process"

World Bank (WB): WB plays important role in Tanzania as far climate change is so far concerned, one of the key coordination platforms for each thematic area of development in Tanzania Round Table Process. The Bank current country partnership framework with Tanzania (2017-2021) has three areas namely:(i) supporting inclusive growth, (ii) investing in people, and (iii) protecting the environment which aims to promote environmental protection and sustainable natural resources management and put in place enhanced disaster risk management and climate and disaster resilience.

V. Climate change interventions

Mitigation and adaptation

Policies and legislation for adaptation

Tanzania produced a National Adaptation Programmes of Action (NAPAs) in 2007 as mandated by the United Nations Framework Convention on Climate Change. The overall vision of Tanzania's NAPA is to identify immediate and urgent climate change adaptation actions that are robust enough to lead to long-term sustainable development in a changing climate.The NAPA identifies the sectors of agriculture, water, health, and energy as Tanzania's most vulnerable sectors to climate change.

Tanzania has outlined priority adaptation measures in their NAPA, and various national sector strategies and research outputs. The NAPA has been successful at encouraging climate change mainstreaming into sector policies in Tanzania; however, the cross-sectoral collaboration crucial to implementing adaptation strategies remains limited due to institutional challenges such as power imbalances, budget constraints and an ingrained sectoral approach. Most of the projects in

[5] UNDP Country Programme (2017-2021) Evaluation –Tanzania UR.

Tanzania concern agriculture and water resource management (irrigation, water saving, rainwater collection); however, energy and tourism also play an important role.

In 2012, Tanzania produced a National Climate Change Strategy in response to the growing concern of the negative impacts of climate change and climate variability on the country's social, economic and physical environment.In 2015, Tanzania submitted its Intended Nationally Determined Contributions (INDC).

VI. Climate Finance Funding sources

6.1 Accessing Climate Finance Funding sources

Tanzania main climate finance sources are from multilateral funds - UNFCCC and non UNFCCC, and development partners, e.g. WB, AfDB, GIZ and others. UN agencies do provide funding, but often their funding amount is relatively small compared to others, UN agencies mostly work with relevant government counterparts on developing funding proposals to be submitted to UNFCCC funds. Government does also provide funding on climate change to ministries, but there is no tracking system on this. Private sector does carry out investment that is related to climate adaptation and mitigation, however, they may not be aware that their activities contribute to climate mitigation and/or adaptation. A tracking system on the private sector's climate change investment is not yet available either.

Responses from key informant interviews indicated that the government will continue focusing on mobilizing climate related funding from the mentioned multilateral funds, as they provide grants and with large investment amounts. Some multilateral funds, e.g GCF, are also open to the private sector for extremely low interest loans. In this regard, climate change related support should also be extended to the private sector to facilitate and support them to access the funds. Overall, there is a lack of diversified sources of long-term financing. Public sector funding including ODA and other development assistance are primary sources of climate finance in The United Republic of Tanzania[6].

To access multilateral funds, the government relies on development partners who are multilateral funds' Accredited Entities (for GCF) or Implementing Entities (for AF) or Partner Agencies (GEF/LDCF), as some of the funds require the

[6] Government of the United Republic of Tanzania, (March, 2021). Intended Nationally Determined Contribution

government to bring together with the funds' partners, and, importantly, due to limited capacity and resource of government entities to meet criteria set by the funds. Significant time and resources are required for proposal development to UNFCCC funds, for example one of Tanzania GCF projects took four years for proposal to be approved.

Climate change technical elements, financial management capacity, project management capacity and environmental safeguard procedure are basic elements that multilateral funds apply when reviewing concept notes and project proposals. At the present, none of the government entities possess all kinds of the capacity. Ministry of Finance and Planning is technically sound but has limited financial management capacity. Bank of Tanzania may meet the multilateral funds' financial management requirements, but they lack climate change expertise. In some instances, government entities have clear ideas on what issues are and the kind of assistance they need, but they face challenges in putting ideas into project proposals in English.

Beside climate finance mobilization, several interviewed informants stressed the importance of maximizing the effectiveness of resources by promoting synergy and avoiding duplication among climate change projects and programmes; they also stressed the necessity of balancing budget on technical assistance and actual activity implementation. Currently climate change related budgets tend to be allocated more to technical assistance than actual activities on ground.

6.2 Review of Climate Finance Funding sources

This report has reviewed different climate funding sources from multilateral, bilateral and private investment channels.

This Guide aims to provide an initial orientation to the available funds that may be relevant for financing climate-related programs, Non Governmental Organizations (NGOs), and public institutions in Tanzania. For this purpose, a wide range of possible donors of climate finance has been screened, covering various windows of the global climate finance architecture. To begin, the major ones includes Multilateral institutions, i.e. UNFCCC-related financial institutions like the Green Climate Fund and non-UNFCCC-related funds, as for example those established by multilateral development banks or UN programs. Many of these funds are relatively large, and well known, but are not necessarily easily accessible to developing countries. This is particularly true for the Green Climate Fund, the

‘flagship fund’ of climate finance. A second important funding window is bilateral climate finance with various budget lines from bilateral donors, mainly from developed countries including for instance the United Kingdom (UK), Germany and Japan. In this Guide, a broad definition for climate finance is used, building on the UNFCCC understanding that, “climate finance refers to local, national or transnational financing, which may be drawn from public, private and alternative sources of financing. Climate finance is critical to addressing climate change because large-scale investments are required to significantly reduce emissions, notably in sectors that emit large quantities of greenhouse gases. Climate finance is equally important for adaptation, for which significant financial resources will be similarly required to allow countries to adapt to the adverse effects and reduce the impacts of climate change.” This broad definition might not serve the purpose of politically shaping the current debate on climate finance which focuses on developed countries and their performance to fulfil the Copenhagen pledge, and later the USD 100 billion goal by 2020 and beyond, as agreed to at COP21 in Paris. In addition, a policy analysis that would include investigating climate finance by criteria such as; new, additional (to official development assistance(ODA)), predictable, gender responsive, human-rights-based, transparent, accountable and adhering to the principles of climate justice is not provided in this Guide. Instead, this Guide is intended to serve a more practical purpose by identifying various climate funds, rather than conducting a political assessment of them. The funds presented are therefore not analysed or scored on how well they perform vis-à-vis the climate finance policy demands of Tanzania. Accordingly, the purpose of this Guide is to explore the practical questions related to climate finance, such as; background and volume of funds, sectoral and regional focus, eligibility criteria, deadlines for calls (where known), contact details and a brief assessment of the relevance of certain funds for Tanzania. In some cases, it might be useful to form consortiums or partnerships in order to apply for funding. In other cases, the most suitable entry point might be to first invest in one’s own institutional capacity in order to become eligible for climate finance. Some of the funds covered in this Guide offer capacity building measures, technical advice or financial support to assist applicants to enhance their institutional capacity. Information on the availability of funds, funder’s priorities, budget-lines, and the specific calls and deadlines needs to be updated constantly. Thus, it is recommended to carefully cross-check the information provided with the Fund of interest. While the Guide covers many funds, it is far from presenting an exhaustive list of available and accessible climate finance. It is therefore

recommended that you extend the search for appropriate climate funds beyond the scope of the funds presented in this Guide. The information provided on additional climate finance resources (literature, websites) at the end of the Guide may help in this regard.

Multilateral Climate Finance

Multilateral climate funds are funds that are provided by multilateral institutions such as; multilateral development banks, United Nations (UN) agencies, and the financial institutions that have been created within the framework of the United Nations Framework Convention (UNFCCC) itself.

UNFCCC Climate Funds

UNFCCC climate funds are funds that have been established under a decision taken by the Conference of Parties (COP) to the UNFCCC. These funds are at the very centre of the financial architecture of the Paris Agreement (PA). UNFCCC climate funds include; the UN Adaptation Fund (AF), the Least Developed Country Fund (LDCF), the Special Climate Change Fund (SCCF), and the Green Climate Fund (GCF).

Adaptation Fund (AF)

Background and Funding Sources The Adaptation Fund (AF) was established at the 7th Conference of the Parties (COP7) held in Marrakesh, Morocco in 2001 and was created as a financial instrument under the UNFCCC and the Kyoto Protocol (KP)2 in 2016, with the entry into force of the Paris Agreement (PA), negotiations started on how to embed the AF into the new financial architecture of the PA

In terms of funding sources, the AF consists of a mixture of auto-generated mechanisms and voluntary contributions, mostly from developed countries. “Auto-generation” refers to funding from the Clean Development Mechanism (CDM)3 where a share of the proceeds made amounting to 2% of Certified Emission Reduction (CERs) issued for a CDM project activity is transferred to the AF.

The AF has at least five innovative elements in comparison to other financing mechanisms:

• A governing board comprised of a majority of members from developing countries;

• The option for eligible countries to have direct access to the funds;

• A relatively streamlined project cycle;

• A certain independence from donor contributions (through the levy on CDM projects);

• A strategic mandate to prioritise the needs of particularly vulnerable communities.

Over the years, the fund has allocated more than USD 462 million to increase climate resilience in 73 countries around the world. In 2017, a total sum of USD 60.3 million was approved for new projects. However, due to the low price for CERs and the increasing dependence on voluntary contributions, the funding situation of the AF has become difficult, which may limit its potential to fund new projects in the future.

Eligibility to Receive Funding

To access the AF, Implementing Entities need to be accredited by the Adaptation Fund Accreditation Panel on suggestion of the Designated Authority of a developing country that is a party to the Kyoto Protocol, and is particularly vulnerable to the adverse effects of climate change. This includes; low-lying coastal and other small island countries, and countries with climate-sensitive, mountainous ecosystems, arid and semi-arid areas, and areas susceptible to flood, drought and desertification. Thus, the AF is directly accessible by eligible countries through their accredited National Implementing Entity (NIE). If a country lacks the national institutions to serve as a NIE, it can nominate a Multilateral Implementing Entity (MIE). This will fulfil the required criteria to serve as Implementing Entities. More information on the accreditation process can be found on the website of the Adaptation Fund.

Regional Focus:

The AF does not have a regional focus, but focuses on developing countries that are particularly vulnerable to the adverse effects of climate change.

Sector Focus

The Adaptation Fund only finances concrete adaptation projects and programs in developing countries.

For instance, the AF is:

• Starting to implement adaptation activities, inter alia, in the area of water resource management, land management, agriculture, health, infrastructure development, fragile ecosystems, mountainous ecosystems, and integrated coastal zone management;

• Improving the monitoring of; diseases and vectors affected by climate change, related forecasting, and early-warning systems, and in this context, improving disease control and prevention;

• Supporting capacity building, including institutional capacity for preventative measures, planning, preparedness and management of disasters related to climate change, including contingency planning, in particular, for droughts and floods in areas prone to extreme weather events;

• Strengthening existing and where needed, establishing national and regional centres and informational networks for a rapid response to extreme weather events, utilizing information technology as much as possible.

Funding Conditions

Applicants are usually national government agencies. Civil society organizations can be included in the project implementation. For a NIE to become accredited, entities are required to meet the legal and fiduciary standards as listed in the Operational Guidelines.

Application Procedure

The Adaptation Fund Board considers project proposals throughout the year on a rolling basis. The proposals submitted are reviewed by a technical committee and are published on the website for public commenting before they are discussed and approved by the AF Board. The AF elaborates on the steps of the application procedure on its website.

Proposals are to be submitted via e-mail to the Adaptation Fund Board Secretariat: afbsec@adaptation-fund.org.

The portfolio of approved projects can be viewed on an online interactive mapping portal. Furthermore, the AF website contains a lot of additional information on approved projects, project performance reports, and projects in the pipeline, which may help applicants to draft successful project applications.

For more details; Contact Adaptation Fund Board Secretariat c/o Global Environment Facility Mail stop: MSN P-4-400 1818 H Street NW Washington DC 20433, USA Tel: +1 202 473-6390 Website: https://www.adaptation-fund.org/ Assessment of relevance for climate change financing

The Adaptation Fund is highly relevant for adaptation projects.

It also provides AF readiness grants to set up a National Implementing Entity (NIE). However, as the AF is currently facing funding constraints, it is advisable to search for alternative funding opportunities.

Least Developed Countries Fund (LDCF)

Background and Funding Sources

The Least Developed Countries Fund (LDCF) was established at the 7th Conference of the Parties (COP 7) held in Marrakesh, Morocco in 2001. It became operational in 2002. The LDCF was established to address the adaptation needs of the Least Developed Countries (LDCs) which are vulnerable to climate change. As a priority, the LDCF supports LDCs in identifying the urgent and immediate adaptation needs that have been compiled in National Adaptation Programs of Action (NAPAs) and its implementation.

The Global Environmental Facility (GEF) administers the LDCF.

Generally, the Global Environment Facility Trust Fund supports the implementation of multilateral environmental agreements and serves as a financial mechanism of the UNFCCC. The World Bank acts as the financial trustee of the GEF. The LDCF is governed by a Council comprising of 32 GEF members; 14 members from donor constituencies and 18 from recipient constituencies. The cumulative pledges to the Fund amounted to USD 1.19 billion and the LDCF approved around USD 1 billion, leveraging almost USD 4 billion in financing from the partners.

The Fund has enabled 49 of the world's most vulnerable countries to access resources for their NAPA preparation. As of 2015, the Fund supported 140 projects and programs in 46 LDCs, which is the largest portfolio of adaptation projects of its kind. The COP, at its eleventh session (COP11), agreed on provisions to operationalise the LDCF to support the implementation of NAPAs, providing

guidance with regards to priority areas, and provisions on full-cost funding and a co-financing scale.

Eligibility to Receive Funding

A country is eligible to receive GEF grants provided that it is also eligible to borrow from the World Bank. Eligible countries need to appoint a national focal point.

Regional Focus

The LDCF does not have a regional focus. All LDCs are eligible.

Sector Focus

The LDCF finances the preparation and implementation of NAPAs, to address immediate and urgent adaptation needs in LDCs. The LDCF plays a role in vulnerability reduction in areas that are crucial for development and livelihoods. This includes sectors of, agriculture and food security, water, health, disaster risk management and prevention, infrastructure and fragile ecosystems. The NAPA implementation projects designed under the LDCF are in line with each country's priorities. They are implemented by national stakeholders and benefit vulnerable communities.

Funding Conditions

Proposals submitted for funding are reviewed in light of agreed project criteria, under the guidance of the COP.

These criteria include;

- Country' commitment on climate change financing,
- program and policy conformity,
- financing, institutional coordination and support,
- and monitoring and evaluation.

Application Procedure

In a first step,

the LDC develops the concept for a project as a Project Identification Form (PIF), with the assistance of one of the GEF agencies. For NAPA preparations, this would involve an initial scoping of existing activities and awareness raising amongst key stakeholders. The PIF may be supported with a small preparation grant.

In a next step, the PIF is submitted to the GEF for approval by the LDCF Council, and can be accompanied by a request for a project preparation grant (PPG). Once the PIF is approved, the country embarks on the development of a full project document, and PPG funding is provided to the country if requested. Once completed, the full project document is submitted to the GEF for endorsement, to finally trigger the disbursement of the requested support to the country for the full project implementation.

In some cases, a country may combine the PIF and PPG stages. The project can be a Medium-Sized Project (MSP) if the total cost from the LDCF is less than or equal to USD 2 million or can be a Full-Sized project (FSP). The FSP undergoes a full review process under the LDCF Council, thus, it takes longer to process the project application in comparison to a MSP. The latter is directly approved and endorsed by the GEF CEO. A complete description of the GEF modalities for accessing the LDCF is contained in Operational Guidelines for the Least Developed Countries Fund

The main projects and programmes in the last five years funded for climate change;

(i)Growth of Tanzania Horticultural Sector: Role of Taha in reducing food loss September, 2020 financed by USAID and USDA.

Horticulture is a fast-growing sector in Tanzanian agriculture. It is growing at a rate of 11% per annum compared to a 4% growth in the overall agriculture sector. Because of the availability of both tropical and temperate climates along with different altitudes and temperatures, Tanzania grows a very wide variety of fruits and vegetables. However, Tanzania's horticulture sector suffers from many challenges such as low and unequal capacities in quality management and

production techniques, low produce quality and safety assurance, inadequate financial services, unreliable transport and electricity supply, and high postharvest losses. Postharvest losses are estimated between 40-50% in the horticulture sector. Tanzania Horticultural Association (TAHA), a member-based trade association established in 2004, has been working to tackle several of these challenges in the horticulture supply chain. They are largely credited for boosting the increase in horticulture exports in the last decade. After working with TAHA, farmers have reported a reduction in food losses from 50-60% to 5-10%. The main reasons for this decrease have been the usage of low-cost techniques such as screen houses, which protects the produce from pests, and charcoal coolers, which keep the produce cool post harvest.

(ii)National Framework for Climate Services under the Global Framework for Climate Services Adaptation Programme GFCS Project

The United Republic of Tanzania has launched the second phase of the Global Framework for Climate Services (GFCS) Adaption Programme in Africa project with the aim of increasing resilience of people most vulnerable to the impacts of weather and climate-related hazards.The multi-agency project, funded by the government of Norway, prioritizes the climate sensitive sectors of disaster risk reduction, food security and health. It focuses on the provision of high-quality and reliable climate services, including downscaled, localized forecasts.

The first phase of the project ran from 2014 to 2017. The second phase was launched at a ceremony in Dar es Salaam on 18 September. It will be implemented in collaboration with the Tanzania Red Cross Society and Intenational Federation of Red Cross and Red Crescent Societies; the World Health Organization; the Ministry of Health, Community Development, Gender, Elderly; Tanzania World Food Program; the Ministry of Agriculture; and Tanzania Meteorological Agency.

The new national framework is spearheaded by the Tanzania Meteorological Agency and embraces different sectors of government and society in order to increase coordination and facilitate cross-cutting action and informed decisions.Tanzania is one of a growing number of countries which have established national frameworks for climate services, inspired by the Global Framework for Climate Services (GFCS), which is championed by WMO.The GFCS builds on the achievements from weather forecasting and improved early warning services of rapid onset hazards like floods, and seeks to promote longer-term climate predictions, from months to seasons to decades.

(iii)**UNCTAD support programs for FAAB and EMPRETEC, To help Tanzania farmers continue to remain ative in livestock and crop farming, UNCTAD** started special programs on changing farmer"s mindset from local/primitive traditional farming to improved/modern farming by implementing training programs known as farming as a business (FAAB) and entrepreneurship (EMPRETEC) PROGRAMS.

(iv) **The "Climate Services Adaptation Programme in Africa: Malawi & Tanzania" was the first multi-agency initiative to be implemented under the Global Framework for Climate Services**. This flagship Programme helps develop user-driven climate services for food security, health and disaster risk reduction in Malawi and Tanzania. Funded by the Government of Norway, the Programme increases the resilience of people most vulnerable to the impacts of weather and climate-related hazards such as droughts and flooding and associated health risks including malnutrition, cholera and malaria. It also aims to strengthen the capacity to develop and use climate services as well as combine cutting-edge science with traditional knowledge. It represents a unique partnership between climate and social scientists, researchers, development and humanitarian agencies and other key user sectors. The Climate Services Adaptation Programme in Africa – also known as Climate Services Action, is being rolled out over a three year period. Kick-off meetings were held in Malawi and Tanzania in February 2014. A national consultation embracing all stakeholders took place in Tanzania in May 2014 and in Malawi in June 2014 to establish the institutional framework to optimize collaboration between climate service providers and users.

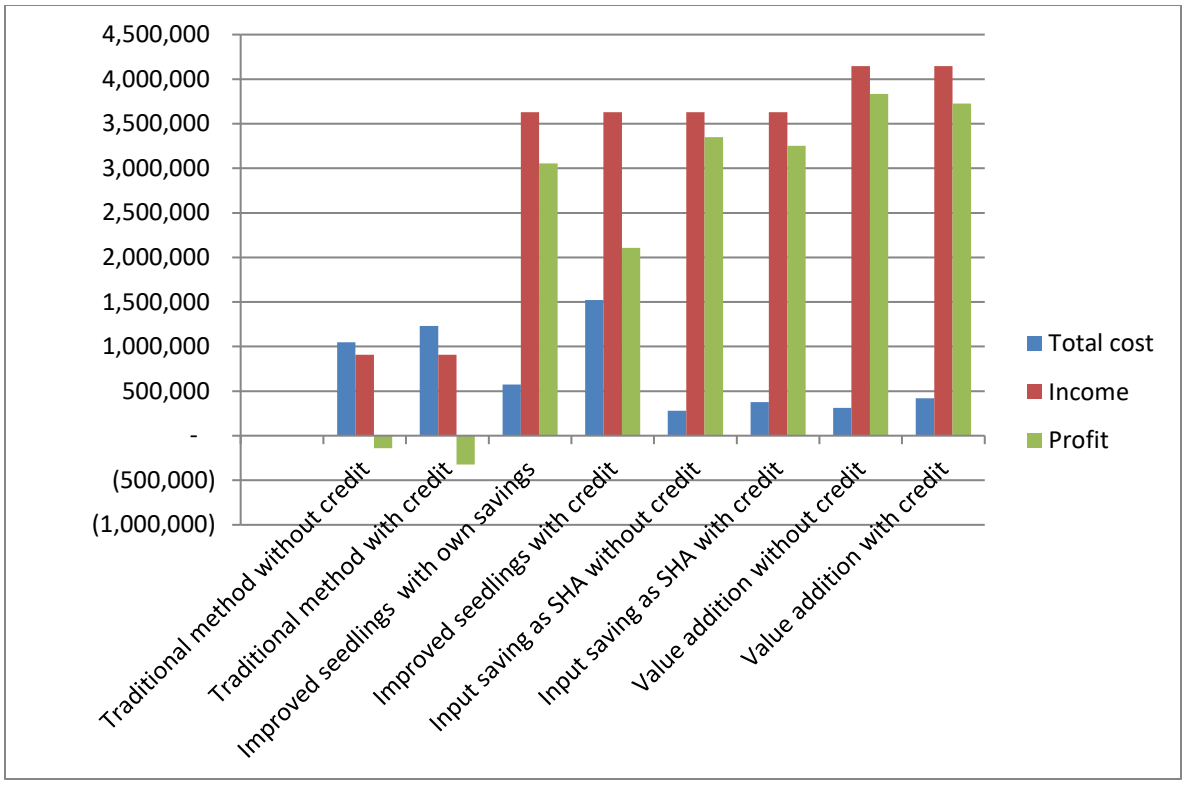
In Tanzania, the programme focuses on improving weather and climate services for food security, health and disaster resilience in two pilot areas in the Longido and Kiteto Districts of northern Tanzania. Both districts are semi-arid and are populated by Maasai communities which depend on livestock for their livelihood and are extremely vulnerable to climate variability which affects the onset, duration and intensity of the rainy season, and climate change. The Tanzania Meteorological Agency is committed to improving the accuracy and reach of its short-term weather and longer-term seasonal forecasts and to make them available in a suitable format to users. Project partners collaborate to identify exact user needs, develop capacities, provide training and awareness activities to ensure the climate information is used effectively and evaluate the contribution of climate services to sustainable development at the end of the three-year period

The following are the areas for potential climate change and agricultural projects to be funded by climate financing sources;

- Modern Horticultural commercial farming (case study of UNCTAD programs on horticultural sector in Tanzania)

Modern Horticultural farming in the Northern Tanzania the case of tomato farming using green houses.

It should be noted that UNCTAD projects implemented in Tanzania will be taken as ilot case studies and demo farms as far as climate change is so far concerned.



Farming

Methods

Modern Fruit Farming tested farming model as part of farmers adaptation to climate change, the case avocado farming in the Southern Highland in Njombe Tanzania

- Water and sanitation
- Livestock commercial farming with special case of Modern dairy farming
- Commercial Fishing projects
- Special programs on selected FRUITS through green house farming in Southern and Northern Tanzania
- Special food and commercial crop farming
- Beekeeping programs implemented for the purposes of Forest and environmental conservation
- Plastic recycling programs

CLIMATE FINANCING SOURCES:

The following are the potential climate financing sources;

- Own local sources-includes local community financing and government financing from domestic revenues
- Multinational International Organization such as The European Union, USDA. USAID, WFP, WMA and NORAD

The following is the initial assessment of needs and priority areas for capacity-building in Tanzania:

- Strengthening existing and, where needed, establishing national climate change secretariats or focal points to enable the effective implementation of the Convention and effective participation inthe Kyoto Protocol process, including preparation of national communications;
- Developing an integrated implementation programme which takes into account the role of research and training in capacity-building;
- Developing and enhancing technical capacities and skills to carryout and effectively integrate vulnerability and adaptation assessment into sustainable development programmes and develop national adaptation programmes of action;
- Strengthening existing and, where needed, establishing national research and training institutions in order to ensure the sustainability of the capacity-building programmes;
- Strengthening the capacity of meteorological and hydrological services to collect, analyse, interpret and disseminate weather and climate information to support implementation of national adaptation programmes of action;
- Enhancing public awareness (level of understanding and human capacity development)."

Local Climate Adaptive Living Facility (LoCAL)

LoCAL applies principles of fiscal decentralization and effective local planning and public financial management to climate change. It combines **performance-based climate resilience grants** (PBCRGs), which ensure programming and verification of climate change expenditures at the local level, with technical and capacity-building support.

Performance-based climate resilience grants provide a **financial top-up** to cover the additional costs of making investments climate resilient, and are channeled through existing government fiscal transfer systems (rather than parallel or ad hoc structures). International climate finance is channeled **through national treasuries**

— right down to the local level. National ministries are involved in regulating the system.

Once designed, delivering performance-based climate resilience grants typically involves these key steps:

1. Climate information and vulnerability and adaptation assessments are reviewed or undertaken to inform the process. Needs and capacities are assessed.
2. In a participatory manner, local governments develop local adaptation plans or programmes, integrate adaptation in their own local development planning and budgeting processes, and cost and select adaptation measures to be financed through the grant.
3. Grants are disbursed to support implementation of LoCAL investments in the context of local authorities' annual planning and budgeting cycles, and selected measures are implemented.
4. Performance is appraised in terms of the degree to which additional resources have been used to build resilience and promote adaptation to climate change.
5. Audits are undertaken as part of the regular national process. The assessment results inform subsequent allocations, and the process provides an opportunity for capacity building.

Capacity-building activities are undertaken at various stages according to identified needs; they target the policy, institutional and individual levels. Often, local governments work with partners that support the capacity building and planning necessary to mainstream adaptation into the decision-making process. These local partners vary by case, but can include other projects and programmes that address adaptation, resilience and environmental issues more broadly. Identifying partners is part of the scoping work in establishing LoCAL in a given country.

Programme rationale

1. The United Republic of Tanzania has recorded sustained growth of more than 6 per cent since 2007 (National Bureau of Statistics (NBS) 2014) and is positioning itself to become a middle-income country (MIC) by 2025.
2. The country has made progress in human development, as reflected in the improvement of its Human Development Index (HDI) from 0.352 in the 1990s to 0.488 in 2013, and is on track to meet four of the seven Millennium Development Goals, for reducing infant and under-five mortality, combating

HIV and AIDS, malaria, universal primary education, and addressing gender equality (Human Development Report (HDR) 2014 and Tanzania Millennium Development Goal report 2014).

3. The country has continued to sustain peace and political stability since adopting multiparty democracy in 1995, including internationally through its critical role in the East African region.
4. 2. Despite these achievements, challenges remain in the areas of sustainable inclusive growth, shared prosperity, sustainable environment and natural resources, and governance.
5. The poverty rate has declined from 33.3 per cent in 2007 to 28.4 per cent in 2012, with 43.5 per cent of the population living on less than $1.25 per day (World Bank, 2015). The Multidimensional Poverty Index shows a higher incidence of poverty than the Household Budget Survey (HBS) poverty data for mainland Tanzania (64 vs. 28.2 per cent) and Zanzibar (43.3 vs. 44.4 per cent) (National HDR, 2014).
6. Inequalities include differences between the rural and urban poor, with 33.4 per cent of the rural population living in poverty compared to 4 per cent in Dar es Salaam and 21.5 per cent in other urban areas.
7. In rural areas, 43 and 1.3 per cent of households respectively, have access to improved water supplies and electricity compared to 85 and 34 per cent of urban households (World Bank, 2014).
8. Limited employment in rural areas has resulted in significant rural-to-urban migration among young people.
9. The underlying causes of poverty in rural areas include low investment, inadequate infrastructure, low productivity growth of the agriculture sector (averaging 3.3 per cent over a decade, according to government data, 2014), exacerbated by unequal distribution of resources, land degradation and climate change. In addition to being rural in character, poverty has mostly affected women. According to the Gender Economics of Women and Poverty Eradication Report (United Republic of Tanzania, 2015) about 60 per cent of Tanzanian women live in extreme poverty. In 2013, the Gender Inequality Index ranked Tanzania 123 of 149 countries with a score of 0.553, implying significant gender gaps in human development. Although 89 per cent of women are working, more than 53 per cent are not being paid, and of the approximately 30 per cent receiving cash earnings, 17 per cent have no say on expenditures being made (NBS, 2011).

10. Weaknesses in employment and empowerment policies, as evidenced by ongoing reviews of these policies, and low capacity for implementation of development programmes are binding constraints in the creation of sufficient decent jobs for new entrants. The most direct way for poor households to escape poverty is to generate sufficient long-term income from labour (World Bank, 2014). Although the country recently has made commendable progress in social protection, inadequate coverage and coordination of social protection interventions leave poor people vulnerable to disease, job loss or other catastrophes (World Bank, 2013). High poverty levels and rapid population growth are exacerbating land and forest degradation, deforestation, loss of biodiversity, environmental pollution and deterioration of aquatic systems including water supplies and catchment areas. The unsustainable use of resources is in turn exacerbating poverty DP/DCP/TZA/2 15-20971 3/14 (Tanzania State of the Environment Report, 2014).
11. The United Nations Environment Programme (UNEP) estimates annual deforestation in mainland Tanzania between 1995 and 2010 at 372,816 hectares, equivalent to 1.7 per cent of the total forest area. Other major challenges that have a significant bearing on poverty are climate change and natural disasters, which affect women's livelihoods in agriculture due to their restricted access to paid employment and dependence on climate-sensitive sectors (ESRF, 2013).
12. The consequences of climate change for agriculture and food security are serious due to the country's reliance on rain-fed agriculture, both as a source of income and for consumption. Climate projection models used to predict crop yield changes for 110 districts show that food security will deteriorate as a consequence of climate change (Arndt, Farmer, Strzepek and Thurlow, 2012). Although there are differences in impacts across households by both region and income, the country's State of the Environment Report (2014) estimates the impact of climate change on agriculture at about 1.12 per cent of gross domestic product per year. In addition, overfishing, livestock overstocking, poaching and illegal wildlife trade has had major impacts on the environment and poverty. A recent census conducted by the Africa Wildlife Foundation shows that the Tanzanian elephant population has decreased by 60 per cent to 43,000 between 2005 and 2015 due to poaching and illegal trade in ivory. 6. In addressing absolute poverty, the Government will continue with its efforts to improve transparency, accountability and

inclusive democratic governance (Vision 2025; National Strategy for Growth and Poverty Reduction (NSGPR) 2010-2015). Oversight institutions, e.g., Parliament, the Controller and Auditor General, the Bureau for Prevention and Combating of Corruption and the Registrar of Political Parties, need to be strengthened (Bertelsmann Stiftung Transformation Index, 2014). Concerns about public and private sector corruption are growing.

13. Capacities to ensure that citizens have a voice for participation and accountability through elections and parliamentary work are improving, building on progress related to a successful democratic transition process and parliamentary oversight of government. Access to justice and human rights needs further improvement (World Justice Project 2015) by strengthening capacities of the justice system and citizens' legal and human rights empowerment. These democratic governance challenges particularly impact the poor, women, people with disabilities and youth. At the same time, there is an increasing demand for voice and participation among those same groups. The organized participation and voice of civil society in public life and policy formulation are also increasing, although from a low baseline.

The key farmers selected as special case in Northern Tanzania (Kilimanjaro) as part of farmers who practice different initiatives to improve production given the current climate change and impact of covid 19 pandemic.

S/N	Stakaholders Name	Contact
1	LEVINA EVON	753826795
2	VICTORIA STANSLAUS	753956820
3	LUCY H MMARY	763586044
4	TUMAIN E MWANDRY	752903142
5	ROSE T OLANG'U	753050903
6	oKULY E. NG'ONDA.	754093497
7	EUNICE MGONJA	757348002
8	JENET JULIAS	766559289
9	LAMANISA ELIREHEMA	

10	HABIKIAELI E MUNUO	758392342
11	RENETA JOHN	752426640
12	CHRISTINA ABRAHAMU	766831684
13	KANAELI NELISONI	757833655
14	SALMA SALIMU	754945622
15	FUREITA SHAYO	756818306
16	MERY WAILES	762993550
17	EDITHA DONATH	764752790
18	AGNESS AMBROS	763271374
19	STELLA FRENK	745509720
20	CATHERINE GILBERT	765163902
21	ELIAICHI MOSHA	765143132
22	FAIBE RAFAELI	742635330
23	WITNESS YONA	742843848
24	ANNETH YONA	788655070
25	GRESS JOSEPH	753430073
26	UPENDO WAILES	718359498
27	AGNESI MOSHA	753788463
28	JOYCE KIDUSI	746583335
29	GRESI LUKA	757612659
30	ROSE TEOFILO.	
31	AWAICHI MENAD	766059341

VII. List of the offices/people consulted;

1. The Office office of the Vice President URT-ENVIRONMENT
2. The office of the Ministry of Finance and Planning
3. The office of the Ministry of the President-REGIONAL GOVERNMENT AND LOCAL GOVERNMENT AUTHORITIES
4. The office of the Director General Tanzania Meteorological Authority
5. The office of LGA Mwanza
6. The office of LGA Tanga

7. The office of LGA Kilimanjaro
8. The office of LGA Arusha
9. The office of LGA Manyara
10. The office of LGA Mtwara
11. The office of LGA Kigoma
12. The office of LGA Morogoro
13. The office of LGA Dodoma
14. The office of LGA Iringa
15. The office of LGA Mbeya
16. The office of LGA Singida
17. The office of LGA Katavi
18. The office of LGA Songwe
19. The office of LGA Njombe
20. The office of LGA Tabora

VII. Conclusion and recommendations

There is a strong need to strengthen the government's capacity in mobilizing climate finance, the current situation is that they depend on development partners' support. Capacity building initiatives should be designed for systematic, strategic and continuous assistance; and avoid short-term one off support. Capacity building programmes should integrate climate change, project cycle management, financial management and environment safeguard topics and target both government and private sector entities.

The following are the main recommendation for major actions and priorities for climate change in Tanzania:

- UNDESA to facilitate climate change financing for Modern Horticultural commercial farming to help farmers in Tanzania maintain and improve efficiency and productiovity (case study of UNCTAD programs on horticultural sector in Tanzania can be taken as lead example)
- UNDESA and other UN Agencies which are climate change concern engage local and international investors in Water and sanitation
- It should be noted that 80% of Tanzanian are farmers and their main activities are cro farming and livestock farming, for the case of livestock farming it is vital for UNDESA and other UN Agencies to help facilitate

financing for Livestock commercial farming with special case of Modern dairy farming

- As regard to Commercial Fishing projects/programs in Tanzania, it is recommended that UNDESA and other UN Agencies support the funding of commercial fishing projects/programs so as to enhance sustainable fishing systems as local fishing cannot sustain the current demands for fish and fish projects.
- It is also recommended that UNDESA and other partner UN Agencies help Tananian public and private sectors to find suitable financing on Special programs on selected FRUITS through green house farming in Southern and Northern Tanzania as part on climate change financing mechanisim.
- Due to the rising Tanzanian population and increasing food needs it is recommended that UNDESA and other UN Agencies assist in financing the Special food and commercial crops farming so as to help Tanzanians in increasing efficiency and effectiveness in production of this important subsector
- Beekeeping programs implemented for the purposes of Forest and environmental conservation is among the vital and recommended initiatives to be undertaken, therefore among other things, UNDESA and other UN Agencies should support this as one major actions to address climate change in Tanzania
- It is recommended that special actions are taken to save the environment and the arable land as well as water by supporting climate change financing for programs related to Plastic recycling programs
- It is recommended that UNDESA become the official financial partner of NATIONAL STAKEHOLDERS FORUM FOR CLIMATE CHANGE FINANCING. TH key stakeholders are in the last steps in registering the TANZANIA CLIMATE CHANGE FINANCING STAKEHOLDERS FORUM which will include both public and private partnership.

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