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ANSAF

Agricultural Non State Actors Forum

ANALYSIS OF POLICIES, STRATEGIES, PLANS AND INSTITUTIONAL SETTINGS FOR AGROECOLOGICAL TRANSFORMATION IN TANZANIA

ANSAF

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Abbreviations and Acronyms

ANSAF	Agriculture Non-State Actors Forum
ASLMs	Agricultural Sector Lead Ministries
ASDP	Agricultural Sector Development Program
CBOs	Community-Based Organizations
CSOs	Civil Society Organizations
EAMCEF	Eastern Arc Mountains Conservation Endowment Fund
FAO	Food and Agriculture Organisation
ICRAF	International Centre for Agroforestry
LGAs	Local Government Authorities
MITI	Ministry of Industry, Trade and Investments
MNRT	Ministry of Natural Resources and Tourism
MoA	Ministry of Agriculture
MoFP	Ministry of Finance and Planning
MoLFD	Ministry of Livestock and Fisheries Development
MoLHHSD	Ministry of Lands Housing and Human Settlements Development
MoW	Ministry of Water
NGOs	Non-Governmental Organizations
NEPAD	New Partnership for Agricultural Development
NSGRP	National Strategy for Growth and Reduction of Poverty
PELUM	Participatory Ecological Land Use Management
PMO – DRM	Prime Minister's Office – Department of Disaster Risk Management
PO-RALG	President's Office - Regional Administration and Local Government
RECODA	Research, Community and Organizational Development Associates
SDGs	Sustainable Development Goals
SAGCOT	Southern Agriculture Growth Corridor of Tanzania
SAT	Sustainable Agriculture Tanzania
SHPs	Smallholder Producers
SUA	Sokoine University of Agriculture
TAFORI	Tanzania Forest Research Institute
TARI	Tanzania Agriculture Research institute
TOAM	Tanzania Organic Agriculture Movement
UDSM	University of Dar es Salaam
URT	United Republic of Tanzania
VPO	Vice President's Office

Executive Summary

The importance of the agricultural sector in the national economy cannot be over-emphasized owing to the relationship between its performance and that of key economic indicators like GDP and employment. Since this relationship is there to stay for some time to come, it justifies the argument that any attempts to improve the living standards of the people must give particular attention to increased production and productivity in the agricultural sector. The National Agriculture Policy 2013 (NAP 2013) aims in developing an efficient, competitive and profitable agricultural industry that contributes to the improvement of the livelihoods of Tanzanians and the attainment of broad-based economic growth and poverty alleviation. Further, to this the Government is committed to bringing about a green revolution that entails the transformation of agriculture from subsistence farming towards commercialization and modernization through crop intensification, diversification, technological advancement and infrastructural development.

Today's food and agricultural systems have succeeded in supplying large volumes of food to global markets. However, high-external input and resource-intensive agricultural systems have caused massive deforestation, water scarcities, biodiversity loss, soil depletion and high levels of greenhouse gas emissions. Despite significant progress in recent times, hunger and extreme poverty persist as critical global challenges. Even where poverty has been reduced, pervasive inequalities remain, hindering poverty eradication.

This report presents a review of the National Policies, Strategies, Plans and Institutional arrangements for agroecology transformation in Tanzania. The review started by defining and describing critical elements of the agroecology concept as an effective approto for agricultural transformation. This was meant to illuminate our understandiof on the concept and facilitate the provision of high-quality policy support to influence policy makers in the country in the development of various legislative machinery (tools) for agroecology in the country. The report also identifies existing bottlenecks, policy gaps and grey areas inhibiting the advancement of agroecology in the country. It also draws examples, best practices and success stories from three countries on how the agroecology agenda has been streamlined or attended to, in those countries.

The analysis covered seven national policies in the country. It covered the National Agriculture Policy (2013), National Environment Policy (2021), National Livestock Policy (2013), National Forest Policy (1998), National Tourism Policy (1999), National Beekeeping Policy (1998), and the National Water Policy (2002). It further analysed different strategies and plans, including the

National Climate Change Response Strategy (2021), National Forest Strategy (2013), National Strategy for Growth and Reduction of Poverty (NSGRP), National Five-Year Development Plans I&II (2016/ 2020 – 2021/2026), Agriculture Climate Resiliency Plan (ACRP, 2014 – 2019 of 2013), and the Agriculture Sector Development Plan II (ASDP II, 2018). Through an in-depth desk review, Key Informant Interviews, telephone interviews and consultations, the Consultant further analysed information gathered from various stakeholders in the country across walks of life and disciplines. The groups of stakeholders who took part in this study included officials from the Government Ministries, Departments and Agencies (MDAs), Private Sector, Development Partners, Agricultural Research Institutes, NGOs, Networks, Research and Academic Institutions.

Overall, the analysis concluded that, there is no single policy, strategy or plan that explicitly explains about agroecology approach in the country. However, various policies, legislative frameworks, strategies and plans indirectly covers icoverrelated to this approach since agroecology covers issues relevant to people's livelihoods, socio-economic wellbeing, social anand d ecological systems while ensuring environmental and ecosystem sustainability beyond agriculture. Furthermore, the analysis revealed that although not supporbywith a policy, strategy or dedicated plan, there is a desk in the Ministry of Agriculture that deals with issues related to agroecology in the country.

Given its importance and need to facilitate effective operationalization of agroecology in the country for enhanced agricultural productivity, strengthened values chains, food systems, nutrition, communities' livelihoods, improved biodiversity conservation, acquisition of Ecosystem Services and ensuring environmental sustainability, the analysis recommends the following:-

- There is a need to develop a sector-wide strategy that emphasizes on the implementation of an agroforestry approach for sustained agricultural productivity in the country. In realising its effective implementation, this approach should be advocated for and mainstreamed (integrated) in the sector strategies, programs, plans, guidelines, rules and regulations.

- In addition to the Strategy, it is hereby recommended to have an action plan developed and implemented by different actors at the Regional and District levels through the coordination of PO-RALG. In this case, extension officers and lead (champion) farmers could be introduced to the concept and capacitated on how to implement agroecology and upscale in their respective areas of jurisdictions.

- It is hereby recommended that issues related to the agroecology approach be housed and coordinated within the Ministry of Agriculture under the Crop Development Division. While MoA houses agroecology, other relevant divisions, sections and units within the Ministry should provide support/ inputs to the Crop Development Division on matters related to agroecology for its prosperity.

- It is hereby recommended that various Agriculture Sector Lead Ministries (ASLMs), Departments and Agencies (MDAs) integrate/ mainstream and institutionalise issues related to agroecology in their different strategies, programs and plans.

- It is hereby recommended to create and facilitate a platform for agroecological approach value-chain actors that informs the progress, opportunities and challenges for furthering the implementation and prosperity of the approach. In particular, there is a need to form a team of experts composed of multi-stakeholders to advise and oversee the development and implementation of agroecology in the country.

- There is a need to continue creating awareness among different stakeholders and actors on the importance of the agroecology concept as it covers broad issues that are critical for improved agricultural productivity in the country. This may also include developing training manuals for short-term and medium training as well as developing curricula on agroecology for schools and tertiary, colleges and higher learning Institutions.

- There is a need to develop a “community of practice” that packages success stories and best practices that can be shared and disseminated in various places in the country for triggering off agricultural productivity while ensuring environmental sustainability. This community of practice should be context-specific; taking cognizance of the social, economic, environmental and contemporary vagaries that are affecting productivity and environmental sustainability.

1.0 INTRODUCTION

1.1 Background

Agriculture which comprises of crops, livestock, fisheries, forestry and hunting sub-sectors is vital to the development goals and a mainstay of the Tanzanian economy contributing to about 24.1 percent of GDP, 30 percent of export earnings and employs about 75 percent of the total labour force. The rate of growth in agriculture is higher than the average annual population growth rate of 2.6 percent implying growth in incomes. However, the average agricultural growth rate of 4.4 percent is insufficient to lead to significant wealth creation and alleviation of poverty, given the low level of agricultural development (URT, 2022). Attaining poverty alleviation requires an annual agricultural growth rate of from 6 to 8 percent.

Despite its importance, agriculture in Tanzania is characterized by low production and productivity due to poor land management, depleted soils and total dependence on rainfall, an insufficient supply of seeds especially Certified and Quality Declared Seeds (QDS), inadequate supply of inputs, markets and finances among others (MoA, 2022). The production system is predominantly small-scale and is limited by rudimentary production tools. These factors, coupled with the impacts of climate change and variability including severe drought, flooding, storms, and epidemics of pests and diseases have increased the risks associated with farming and left rural households highly vulnerable to food insecurity and poverty. (ASDP, 2018). According to the guidelines issued by the Ministry of Agriculture in April, 2022, The Minister of Agriculture claimed that some crops are produced in ecological zones that do not fit those crops; as a result, there are a lot of crop failures in the country.

The National Sample Census of Agriculture (NSCA) 2019/2020 indicates that out of about 12 million total households in the country, 7.8million households (65.3%) are involved in agricultural activities. Small-Holder Producers (SHPs) depend heavily on rainfed agriculture both as a source of income and consumption and therefore are most vulnerable to climate change. The NSCA 2019/2020 findings revealed that the agricultural households reported climate change as the major constraint followed by costs of inputs and access to land. SHPs in Tanzania are vulnerable to the vagaries of climate change because of their limited capacity to respond or adapt to its impacts. Poor resilience is worsening food insecurity, increasing competition for land and water resources and therefore increasing loss of biodiversity and pushing more people into poverty.

In efforts to address the challenges of climate change, Tanzania has instituted several policies and plans including the National Environmental Policy (2021), National Climate Change Response Strategy (2021), National Adaptation Program of Action (NAPA, 2007), National Climate Smart Agriculture Program (2015-2025), Climate Change Gender Action Plan (GAP, 2013), and National Strategy for Climate Change Adaptation and Resilience of Dryland Agriculture (2020-2030).

However, adaptation actions within agriculture still receive insufficient support (Loboguerrero et al, 2019), in terms of resources and strong institutions. Agroecology (an integrated and crcross-sectoralpproach) has emerged as an important element in the transition process, towards reducing the environmental footprint of agriculture and guaranteeing healthy ecosystems as well as sustainable food and nutrition security.

Africa has been focusing on improving agriculture and food production systems to make them more resilient and sustainable while increasing productivity. There have been efforts to improve agricultural productivity, food security, access to markets and sustainable development in Africa. These include the continental, regional and national initiatives and strategies such as the Strategy for Agricultural Transformation in Africa (2016-2025), Grow Africa Partnership of 2011, the Comprehensive African Agriculture Development Programme (CAADP) of 2003, ECOWAS Common Agricultural Policy Framework (ECOWAP) of 2005, and the Malabo Declaration of 2014 among others. A shift from conventional agricultural production systems to agroecology, as a better option, has been necessitated.

Agroecological approaches favor the use of natural processes, limit the use of purchased inputs, promote closed cycles with minimal negative externalities and stress the importance of local knowledge and participatory processes. Participatory processes anchor knowledge development and practice through experience, as well as more conventional scientific methods (HLPE, 2019). However, it is unfortunate that agroecology is scantly addressed in Tanzania's decision-making process and rural development programs including extension. As a result, its potential contribution to the economy and sustainable development goals has not been fully exploited. Furthermore, agroecological practices are mainly disseminated by few local associations or NGOs, which promote and lead several development projects, and inadequate concern from the government has been identified as the main constraint to the development of agroecology at the farm level (Paracchini et al., 2020). Furthermore, being a multi-sectoral concern, there is an evident vacuum on which institution is designated to take charge of cross-cutting issues related to agroecology.

ANSAF is implementing a project dubbed "Enhancing Agroecology Friendly Policies and Practice Project" funded by the McKnight Foundation through Collaborative Crop Research Programme (CCRP). In this project, ANSAF advocates for inclusive and friendly agroecology policies and practices that empower smallholder farmers to practice market-led and sustainable agriculture. ANSAF is also generating evidence through policy and budget analysis and uses an existing plethora of evidence to influence informed decision-making.

1.2 The Purpose and Scope of the Study

The study sought to generate evidence that informs policy and decision-making processes at the national and local levels to enhance agroecology transformation for sustainable use of natural

resources and smallholder producers' resilience for sustainable food systems, industrialization process and economic growth in Tanzania. Through a quick analysis of policies, strategies, plans and institutional settings for agroecological transformation in Tanzania, the study specifically aimed to: -

i) ***review*** *the existing policy framework, strategies, and plans and identify opportunities and gaps for agroecological transformation in Tanzania.*

ii) a***ssess*** *existing institutional frameworks to identify opportunities and gaps for agroecological transformation in Tanzania.*

iii) ***draw lessons*** *from other countries on how the agroecology transformation agenda is streamlined in their national policies, plans and institutions.*

iv) ***recommend options*** *and* ***identify potential opportunities*** *for streamlining agroecology in national policies, plans and institutional settings.*

2.0 AGROECOLOGY: ELEMENTS, GENESIS AND JUSTIFICATION IN TANZANIA

2.1. What is Agroecology?

According to FAO (2018), Agroecology is an integrated approach that simultaneously applies ecological and social concepts and principles to the design and management of food and agricultural systems. It seeks to optimize the interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system. This approach can support small-scale producers in a variety of ways: it can help increase their capacities for resilience, reduce costs and dependency on external inputs, and improve access to nutritious and safe food and markets (IFAD, 2019). Agroecology is based on bottom-up and territorial processes, helping to deliver contextualized solutions to local problems. Agroecological innovations are based on the co-creation of knowledge, combining science with the traditional, practical and local knowledge of producers. This practice places a strong focus on the rights of women, youth and indigenous peoples (FAO, 2018, Sinclair et al. 2019).

2.2 Elements of Agroecology

In guiding countries to transform their food and agricultural systems, to mainstream sustainable agriculture on a large scale and achieve Zero Hunger and multiple other Sustainable Development Goals (SDGs), FAO (2018), developed ten (10) elements of agroecology. These elements were developed by building on Altieri's (1995) five principles of agroecology and Gliessman's (2015) five levels of agroecological transitions. These elements are crucial to illuminate our understanding on ofe whole concept of agroecology and subsequently call for agroecological transformation in the country. These elements are:-

***Diversity*:** Agroecological systems are highly diverse. From a biological perspective, agroecological systems optimize the diversity of species and genetic resources in different ways. Increasing biodiversity contributes to a range of production, socio-economic, nutrition and environmental benefits.

Co-Creation and Sharing of Knowledge: The co-creation and sharing of knowledge play a central role in the process of developing and implementing agroecological innovations to address challenges across food systems including adaptation to climate change. Through the co-creation process, agroecology blends traditional and indigenous knowledge, producers' and traders' practical knowledge, and global scientific knowledge.

***Synergies**:* While agroecological approaches strive to maximise synergies, trade-offs also occur in natural and human systems. To promote synergies within the wider food system, and best manage trade-offs, agroecology emphasizes the importance of partnerships, cooperation and responsible governance, involving different actors at multiple scales.

***Efficiency**:* Increased resource-use efficiency is an emergent property of agroecological systems that carefully plan and manage diversity to create synergies between different system components. Agroecology promotes agricultural systems with the necessary biological, socio-economic and institutional diversity and alignment in time and space to support greater efficiency.

Recycling: Recycling delivers multiple benefits by closing nutrient cycles and reducing waste that translates into lower dependency on external resources, increasing the autonomy of producers and reducing their vulnerability to market and climate shocks. By imitating natural ecosystems, agroecological practices support biological processes that drive the recycling of nutrients, biomass and water within production systems, thereby increasing resource use efficiency and minimizing waste and pollution.

***Resilience**:* Diversified agroecological systems are more resilient – they have a greater capacity to recover from disturbances including extreme weather events such as drought, floods or hurricanes, and to resist pest and disease attack. Through diversification and integration, producers reduce their vulnerability should a single crop, livestock breed or other commodity fail.

Human and Social Values: Agroecology places a strong emphasis on human and social values, such as dignity, equity, inclusion and justice - all contributing to the improved livelihoods dimension of the SDGs. By building autonomy and adaptive capacities to manage their agro-ecosystems, agroecological approaches empower people and communities to overcome poverty, hunger and malnutrition, while promoting human rights, such as the right to food, and stewardship of the environment so that future generations can also live in prosperity.

Culture and food traditions: Agroecology plays an important role in re-balancing tradition and modern food habits, bringing them together in a harmonious way that promotes healthy food production and consumption, supporting the right to adequate food. As people and ecosystems have evolved together, cultural practices and indigenous and traditional knowledge offer a wealth of experience that can inspire agroecological solutions. By supporting healthy, diversified and culturally appropriate diets, agroecology contributes to food security and nutrition while maintaining the health of ecosystems.

Responsible Governance: Sustainable food and agriculture requires responsible and effective governance mechanisms at different scales – from local, and national to global. Territorial, landscape and community level governance, such as traditional and customary governance models, is extremely important to foster cooperation between stakeholders, maximising synergies while reducing or managing trade-offs.

***Solidarity Economy*:** Agroecology seeks to reconnect producers and consumers through a circular and solidarity economy that prioritizes local markets and supports local economic development by creating virtuous cycles. Agroecological approaches promote fair solutions based on local needs, resources and capacities, creating more equitable and sustainable markets.

2.3 Genesis of Agroecology in Tanzania

Although agroecology started way back in the year 1920, the concept is new to many for agricultural development because of the traditional environment where agriculture was practiced without much regford on environmental protection. Agroecology has increased its ability and creativity in modern agriculture methods as well as environmental protection and will use the knowledge gained in the daily agricultural activities. According to FAO (2018), Agroecology is not a new invention. It can be identified in scientific literature since the 920s, and has found expression in family farmers' practices, in grassroots social movements for sustainability in and the public policies of various countries around the world. More recently, agroecology has entered the discourse of international and United Nations institutions.

In Tanzania, agroecology is practiced by default in different ways. In areas such as Arusha, Kagera, Kilimanjaro, Ruvuma, Mbeya, farmers practice shaded Coffee agroforestry practices. In Morogoro rural, Turiani and Kyela do shaded cocoa agroforestry. Intercropping practices involving leguminous tree/shrub species, pigeon pea, beans and spice-based agroforestry practices where crops are grown under partial shade of trees (e.g. Cinnamon) or use trees as support black paper are widely practiced. In addition, sustainable water and land management practices like the use of contours, bench terraces and tree hedgerow intercropping on sloping areas like Lushoto, Uluguru providens provides a situational landscape on how crucial elements of agroecology are practiced in the country. Similarly, use of locally organic inputs (manure and botanical pesticides) in vegetable farming and tree fruit cultivation such as Avocado fruits growing in several parts of Tanzania are some of examples of agroecology practices in the country. Furthermore, forest garden in areas such as Singida and Tabora are promoted to create areas of high value timber and fruit trees with crops and livestock production. These are some of the examples on how sub-sets of agroecology are practiced in the country.

2.4 Rationale for Agroecology in Tanzania

Agroecological practices have an important role to play in securing sustainable and inclusive food systems. Throughout Africa region and Tanzania in particular, growing populations, increasing challenges facing the agriculture sector and the increasingly strong effects of climate change are challenging both the capacities of the region's and country's current food systems and the food security of its rural populations (IFAD, 2021). It is expected that, agroecology will be critical to responding to these challenges.

A more recent study examined 40 initiatives employing agroecological production methods in 20 African countries, including agroecological approaches to aquaculture, livestock, agroforestry, conservation agriculture, and crop variety improvements with locally appropriate cultivars and cropping systems. Analysis of project outcomes demonstrated not only an average crop yield increase of 113%, but numerous environmental benefits too, including carbon sequestration and reductions in pesticide use and soil erosion (Dev., 2012).

To achieve SDG 2 (zero hunger) and leave no one behind despite the increasing challenges posed by climate change, it is important to engage and call for crucial partnerships to spearhead investments in rural development. These efforts will make an enormous contribution in the transition to sustainable food systems benefiting small-scale producers and vulnerable rural communities throughout the region and the developing world (IFAD, 2021). As part of justification to embark on agroecology, it is important to be cognizance of significances of this approach for the agricultural productivity in the country. Among other advantages of this approach, they include:-

a) agroecology ensures sustainable diversified agricultural production for enhanced food production, nutrition security and improved livelihoods among community members.
b) agroecology contributes to improved agricultural operations as it seeks to change the input-intensive; environmentally-harmful practices and services to renewable, eco-friendly, and naturally sourced practices.
c) increase agricultural biodiversity for increased resilience to weather variation, environmental degradation and the associated observed changes and their impacts including climate change.
d) agroecology enhances beneficial biological interactions and synergies among agrobiodiversity components thus resulting in the promotion of key ecological processes and services as well as enhancing recycling of biomass and optimizing nutrient availability and balancing nutrient flow.

e) agroecology strengthens unity and peace within a community because people share seeds, technology, and practices. It promotes local knowledge and indigenous practices used by farmers with accuracy and experience.

f) agroecology restores soil health which is most essential for crop growth and production. The approach reduces and limit soil pollution and degradation through sustainable agricultural practices.

g) agroecology increases efficiency as it involves using efficient processes that reduce the inputs of industrial products and their adverse effects.

It is therefore important that different policy and decision-making levels internalizes and see that agroecology is domesticated in the country for agricultural transformation. This will not only ensure food security, improved livelihoods, maintaining ecosystem biodiversity, address climate change challenges and improved socio-economic well-being but also enable the country to meet the SDGs targets by 2030 and beyond.

Current Approaches	Agroecological Approach
Dominated by Segregation	Calls for Integration
Reductive perspective	Systemic perspective
More external and artificial inputs	More local and natural inputs
Declining Biodiversity	Promoting Biodiversity
Degeneration	Regeneration
Input intensive	Knowledge intensive
Measures single crop yield	Measure whole farm yield
Mono cropped	Multi-cropped
Low resource use efficiency	High resource use efficiency

Table 1: Traditional Approaches and Agroecological Approach as adapted from Agroecology: India's Journey to Agricultural prosperity (2015)

3.0 METHODOLOGY FOR THE ANALYSIS

Mixed approaches were used for data and information collection in this study. A comprehensive desk study was conducted where existing literature on different policies, strategies and plans as well as institutional frameworks relevant to agroecology in Tanzania were reviewed and analysed. A total of thirty six (36) questionnaires for Key Informant Interviews (KIIs) were administered with the identified stakeholders at the national level targeting policymakers, Government officers, Development Partners, researchers, Non-Governmental Organisations, private sector, practitioners and individuals including retirees. Telephone interviews and consultations were also conducted as a follow-up to furthering and deep-diving into issues related to agroecology.

3.1 The Methodological Approach Framework

The overall assignment was segmented into four main phases, namely the Inception phase, Data collection, Synthesis and Report phases that are inter-linked. Each phase was further broken down into task areas and deliverables, which are self-explanatory. The methodological conceptual framework that was used in achieving the objectives of this assignment is illustrated in the figure:-

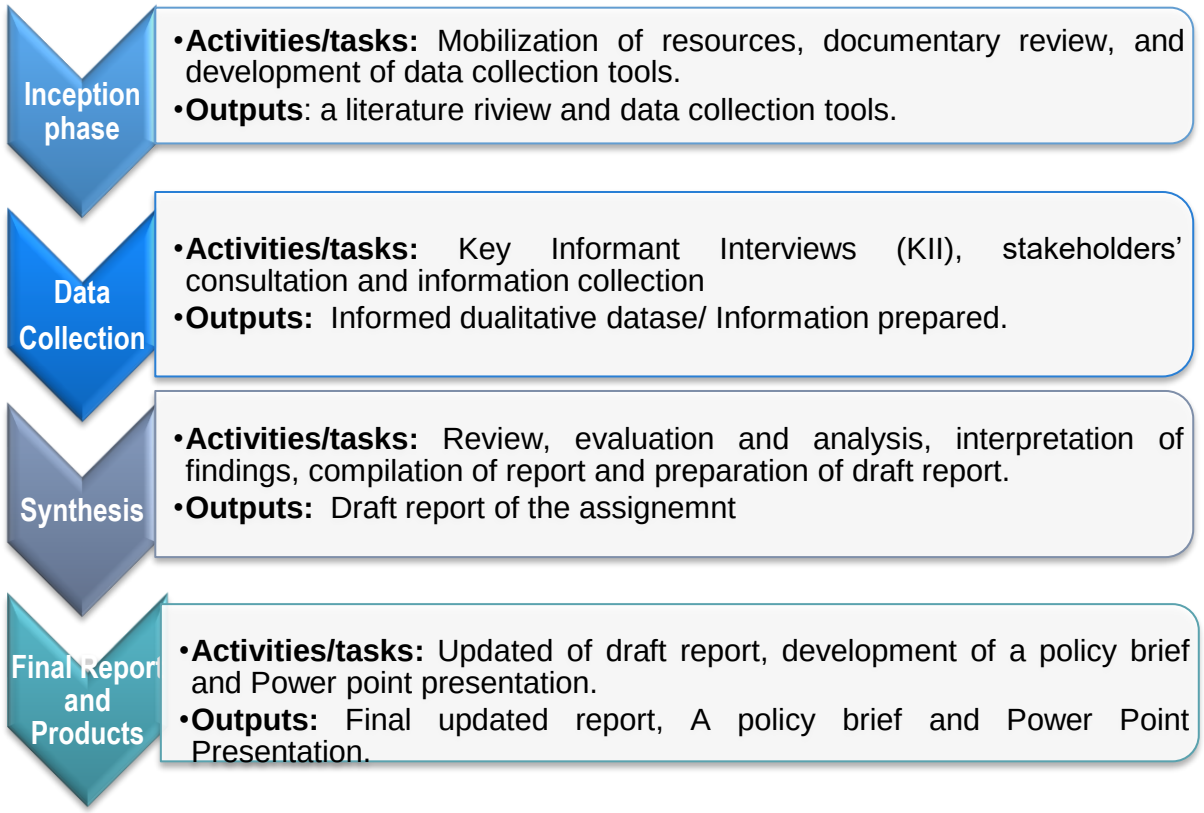

Figure 1: Methodological Framework for carrying the assignment

3.2 Desk review, evaluation and analysis of relevant documents and reports

The consultant collected and reviewed different relevant policies, strategies, plans, documents and reports; relevant to this assignment. Other sources included, review of online peer-reviewed documents, reports and best practices of the various countries on how they mainstream agroecology in their policies, strategies, programmes, plans and Institutional settings.

3.3 Administering Key Informant Interviews (KII) and Consultations

The consultant distributed the questionnaires targeting selected Key Informant Interviewees (KII). In addition, the consultant conducted telephone interviews and skype calls with stakeholders to further deep-dive in getting insights on the subject matter. The stakeholders consulted were from: -

i) Ministry of Agriculture (Environment Management Unit, Policy and Planning Department), Ministry of Livestock and Fisheries (MoLF), VPO-DoE, PO-RALG, Ministry of Water (MoW), Ministry of Natural Resources and Tourism (MNRT),

ii) Private Sector and Development Partners (DPs).

iii) NGOs and CSOs including Vi Agroforestry, Agroecology Hub, SAGCOT, ANSAF, MVIWATA, ICRAF, SAT, TOAM, TABIO, AMDT, ForumCC, CAN Tanzania and TFCG.

iv) Research and Academic Institutions including Sokoine University of Agriculture (Agroecology hub), University of Dar es Salaam (Centre for Climate Change Studies), ESRF, REPOA, Individual Consultants/ Experts and E-Link Consults.

3.4 Data Analysis and Report Writing

The collected information was then synthesized and packaged into relevant sections of the draft report. A draft report was then shared to various stakeholders including the client for their review and further inputs and improvement. The inputs (feedback) from stakeholders (selected few) were incorporated into the final report and shared. In addition, a policy brief and a Power point presentation was developed drawing lessons from the report.

4.0 MAJOR STUDY FINDINGS

4.1 POLICY, STRATEGIES, PLANS AND INSTITUTIONAL SETTINGS FOR THE AGROECOLOGICAL TRANSFORMATION IN TANZANIA

4.1.1 Policies for the agroecological transformation in Tanzania

a) National Agricultural Policy (2013)

The National Agriculture Policy of 2013 aims to develop an efficient, competitive and profitable agricultural industry that contributes to the improvement of the livelihoods of Tanzanians and attainment of broad based economic growth and poverty alleviation. Specifically, the policy seeks to enhance national food and nutrition security and production of surplus for export; enhance production of quality products in order to improve competitiveness of agricultural products in the domestic, regional and international markets; and protect and promote integrated and sustainable utilization of agricultural lands. The policy promote green revolution in agriculture through crop diversification and intensification of farming systems and environmental sustainability in Agriculture. These cannot happen without applications of agroecology approaches. Se*ction 3.13.1* of the policy covers issues of agricultural marketing, storage and processing. *Section 3.25 and 3.26* under cross-cutting issues covers issues related to environment, climate change, and Gender, which are important elements of agroecology. Unfortunately, the policy does not explicitly mention agroecology as an important agricultural practice for enhanced agricultural productivity to ensure food security in the country.

b) National Livestock Policy (2006)

Much as the policy does not explicitly mention agroecology as an important agricultural practice for enhanced agricultural productivity to ensure food security, the policy aims to among other things contribute towards national food security through increased production, processing and marketing of livestock products to meet national nutritional requirements, improve peoples' standards of living and incomes. Pasture production for zero grazing where fodder trees and grass are integrated on contours, farm boundaries and other niches in the farms for instance are key examples where agroecology link with livestock. *Section 3.14* of the policy advocates for organic livestock farming which aims at promoting organically produced livestock products in order to exploit special market demands. The policy postulates that, this type of farming could provide source of livelihood to livestock farming communities if promoted and supported by the government and private sector. *Section 3.21* advocates for collection and use of indigenous knowledge and skills, which people in a particular geographical area possess and is being passed from one generation to another.

c) National Environmental Policy (2021)

The National Environment Policy provides a broad range of measures and actions responding to key environmental issues and challenges. Specifically, the policy aims at enhancing environmentally sound management of land resource for socio-economic development; promoting environmental management of water sources; strengthening conservation of wildlife habitats and biodiversity; enhancing conservation of forest ecosystems for sustainable provision of environmental goods and services; promoting gender consideration in environmental management all levels; among other objectives. Environment being vital in the economic development of Tanzania provides the basic resources for virtually all socio-economic activities and holds natural habitats, plants and animals that are part of an irreplaceable global heritage and a foundation for eventual alleviation of abject poverty. It follows therefore that the major thrust of environmental management is protection of the natural living space of humankind and integration of environmental scarcity in making decision on all economic issues and activities which is critical within the agroecology discourse. Unfortunately, the policy does not explicitly speak about agroecology.

d) National Forest Policy (1998)

The National Forest Policy (NFP, 1998), strives to enhance the contribution of the forest sector to the sustainable development of Tanzania; the conservation and management of natural resources for the benefit of present and future generations. Specifically, the policy strives to ensure sustainable supply of forest products and services by maintaining sufficient forest area under effective management; ensured ecosystem stability through conservation of forest biodiversity, water catchments and soil fertility among others. The policy advocates for the promotion of wildlife-based eco-tourism through the development of linkages and cooperation with different actors and sectors across levels and scales including the private sector. In addition, the policy strongly advocates for closer and huge involvement of local communities and other stakeholders in biodiversity conservation and management through management plans and agreements as well as watershed and soil conservation plans. It is worth noting that, most of these aspects are key elements of agroecology. Unfortunately, the policy does not explicitly cover agroecology as an effective agricultural practice for enhanced food productivity.

e) National Beekeeping Policy (1998)

The National Beekeeping Policy, seek to enhance sustainable contribution of the sector for socio-economic development and environmental conservation. Among other objectives of the policy, is the improved quality and quantity of honey, beeswax and other bee products and

ensured sustainable supply of honey, enhanced beekeeping-based national development and poverty alleviation efforts through sustainable supply of bee products and services, improved biodiversity, increased employment and foreign exchange earnings through sustainable bee products-based industrial development and trade. Much as the policy does not explicitly speak about agroecology, aider stakeholders' engagement and acquiring ecosystem's services and many of these objectives subscribes to and are critical elements of agroecology approach.

f) National Tourism Policy (1999)

The National Tourism Policy of 1999 seeks to alleviate poverty, through encouragement of the development of sustainable and quality tourism that is culturally and socially acceptable, ecologically friendly, environmentally sustainable, and economically viable. The policy aims at encouraging cross-cultural exchange and enhancing local and international understanding; promotion and development of tourism that is ecologically friendly and environmentally sustainable and develop cultural values, create cultural awareness and promote community participation as a form of product diversification in the tourism industry. *Section 5.2, 5.3, 5.9, and 5.13* among others of the policy emphasizes on issues related to eco-tourism, cultural aspects of tourism, community participation and environmental protection which calls for designing of environmentally-friendly tourism programs. In addition, the policy calls for involvement and sharing of the benefits with communities living within or around these tourist attractions as well as ensuring protection, enhancement and improvement of various components of the environment. These are all critical components and fundamentals of agroecology.

g) National Water Policy (2002)

The National Water Policy of 2002 aims to ensure that social and productive sectors, and the environment receive their adequate share of the water resources, ensure effectiveness and efficiency of water resources utilization, promote the management of water quality and conservation and improve the management and conservation of ecosystems and wetlands.
In relation to agroecology, *section 4.3* of the policy aims to have in place water management system which protects the environment, ecological system and biodiversity. S*ection 4.10* of the policy advocates for participation of both men and women in planning, decision-making, management and implementation of water resources management and development. In addition, *part 4.1 and 4.8 of section II* of the Policy under Rural Water Supply calls for ownership of sustainable water supply and sanitation services by communities to be involved during planning, designing and construction of water schemes in the country. As part of deduction on this policy, protection of environment, ecological systems, wetlands, biodiversity, involvement of

communities in planning, designing and construction of water projects are somehow related to elements of agroecology.

4.1.2 Strategies for the agroecological transformation in Tanzania

a) National Climate Change Response Strategy 2021 – 2026 (2021)

The National Climate Change Response Strategy 2021 – 2026 of year 2021 envisages to enhance overall national resilience to the potential adverse impacts of climate change and enable the country to pursue low emission development pathways to achieve sustainable development. Specifically, the strategy strives to devise and implement strategic adaptation and mitigation measures in line with the national circumstances, requirements of climate change related multilateral environmental agreements, Sustainable Development Goals (SDGs), Sendai Framework for Disaster Risk Reduction (SFDRR) and related bilateral and regional agreements. It further envisages to promote the production and integration of traditional weather and climate services for improved warning systems and reducing climatic disaster risks; and promote and facilitate transfer of climate-smart technologies to support climate change adaptation and mitigation. In addition, it promotes gender-responsive climate change adaptation and mitigation interventions; and promote inclusive engagement of stakeholders, including community, media, civil society organizations and the private sector, in designing, implementing and monitoring sustainable climate change adaptation and mitigation interventions across levels and scales. Essentially, the NCCRS covers a myriad of aspects that enables agroecological transformation in the country.

b) National Strategy for Growth and Reduction of Poverty (NSGRP)

The National Strategy for Growth and Reduction of Poverty (NSGRP II) focusses on poverty reduction through enhanced economic growth. NSGRP builds on the National Poverty Eradication Strategy (NPES 2000-2015), Poverty Reduction Strategy Paper (PRSP) (2000/01-02/03), the one-year PRS Review and the Medium-Term Plan for Growth and Poverty Reduction and the Tanzania Mini-Tiger Plan 2020 (TMTP 2020) which emphasises on growth momentum to fast-track the targets of Vision 2025. Accordingly, NSGRP recognises the contribution of all sectors towards growth and poverty reduction and stresses the cross-sector collaboration and inter-sector linkages and synergies.

The strategy advocates for environment and conservation of natural resources feature as important development issues that crosscut the three clusters namely (i) Growth and reduction of income poverty, (ii) Improvement in quality of life and social well-being, and (iii) Governance

and accountability. In addition, the National Strategy for Growth and Reduction of Poverty (NSGRP)'s aims in sparking the Tanzania Development Vision 2025 that envisages raising the general standards of living of Tanzanians to the level of a typical medium-income developing country by 2025 and meeting the Sustainable Development Goals. Issues related to poverty eradication, environmental and conservation of natural resources as well as the articulated three components under the NSGRP are some of the critical components of agroecology worth noting and taking further under this analysis.

4.1.3 Plans and Programme for the agroecological transformation in Tanzania

a) Agriculture Climate Resiliency Plan (2013)

This action plan intends to provide Tanzania's crop agriculture sub-sector and stakeholders with a roadmap for meeting the most urgent challenges of climate change. Among the specific objectives of the ACRP are to implement a participatory, risk-based approach to climate action that addresses the uncertainties of climate change and identifies risks while ensuring sector policies and initiatives are resilient against a range of future scenarios. The Plan consider the agriculture sector as large and complex domain through which opportunities may arise to mainstream climate action into emerging projects, initiatives and programs, or require actions to address key vulnerabilities. Apart from the afore-mentioned aspects, four priority actions of the ACRP are key elements of agroecology. These action area to improve agricultural water and land management, accelerate uptake of Climate Smart Agriculture, protect the most vulnerable against climate related shocks and Strengthen knowledge and Systems to target climate action. Addressing climate change in particular is a critical phenomenon under agroecology approach.

b) National Five-Year Development Plan II & III (2016/17 -2020/2021 and 2021/22 – 2025/26)

The National Five-Year Development Plan II (2016/17 – 2020/21) was for "Nurturing Industrialization for Economic Transformation and Human Development". It encompasses four priority areas which are: (i) promotion of growth and industrialization for economic transformation; (ii) enhancement of human development; (iii) improvement of the enabling environment for enterprise development; and (iv) improving implementation effectiveness. On the other hand, The Third National Five-Year Development Plan (2021/22 – 2026/26) seeks to contribute to the achievement of goals of the Tanzania Development Vision 2025. It aims to have a country with peace, stability and unity; good governance; an educated and learning society; and a strong economy that can withstand competition and benefit many people.

It is important to note that, peace and political stability of a country are valuable assets that, among other things, will attract local and foreign investors to areas with economic growth opportunities. Further, FYDP III highlights for increased investment in science, technology and innovation as a way for the country to move from comparative advantage into competitive advantages, stimulating industrial development and becoming competitive in the local, regional and global markets as well as meeting the SDG's targets. The Five-Year National Development Plan 2021/22 - 2025/26 have a theme of realising competitiveness and industrialization for human development that aims to increase efficiency and productivity in manufacturing using the resources available in abundance within the country. To achieve these, aspects such as good governance, improved productivity, inclusivity and socio-economic transformation are key. These are some of the agroecological aspects that create a door for agroecological transformation in the country.

c) Agriculture Sector Development Program II

The government of Tanzania finalized the formulation of a ten-years Agriculture Sector Development Program II (ASDP II). The program is a follow-up to the ASDP I implemented from 2006/2007 to 2013/2014. ASDP II which was designed based on the lessons learnt during the ASDP I implementation, aims at transforming the agricultural sector (crops, livestock & fisheries) towards higher productivity, commercialization level and smallholder farmer income for improved livelihood, food and nutrition security and contribution to the GDP. The program's strategy is to transform gradually subsistence smallholders into sustainable commercial farmers by enhancing and activating sector drivers and supporting smallholder farmers to increase productivity of target commodities within sustainable production systems and forge sustainable market linkages for competitive surplus commercialization and value chain development. Based on critical aspects/ considerations of agroecology, one could deduce that improved agricultural productivity, livelihoods, nutrition security and general socio-economic well-being of communities and the country as a whole are all fundamental in agroecology approach in the country.

4.1.1 Institutional Arrangement for the agroecological transformation in Tanzania

a) Ministry of Agriculture (MoA)

The Ministry of Agriculture (MoA) is nucleus for provision of policy guidance and services to a modernized, commercialized, competitive and effective agriculture and cooperative systems. Its mission is to deliver quality agricultural and cooperative services, provide conducive environment to stakeholders, build capacity of local Government Authorities and facilitate the private sector to contribute effectively to sustainable agricultural production, productivity and

cooperative development, The MoA does this by formulating, coordinating, monitoring and evaluating the implementation of relevant policies in the agricultural sector and monitoring crop regulating institution. It further performs crop monitoring and early warning, maintaining strategic food reserves and promoting appropriate post-harvest technologies, and encourages, undertaking and coordinating research and development and training. It does all these functions through collaboration with the private sector, local government and other service providers to provide relevant technical service in research, extension, irrigation, plant protection, crop promotion, land use, mechanization, agricultural inputs, information services and cooperative development. Through the Crop Development Division which is mandated to provide inputs on crop development policies, legislations, standards and rules; develop crop development strategies, programmes and implementation and promote sustainable agriculture among other functions, it is indeed well situated to host and coordinate Agroecology related issues in the country. Through inputs and guidance from other divisions, sections and units with the Ministry, the proposed development of the Agroecology strategy will be coordinated without difficulties. e division.

b) Ministry of Natural Resources and Tourism (MoNRT)

The Ministry of Natural Resources and Tourism is the government ministry of Tanzania that is responsible for the management of natural resources, cultural resources and for the development of the tourism industry. It has a wide range of investments in various tourist resources and tourism industry projects. MNRT's vision is to ensure sustainable conservation of natural and cultural resources and development of responsible tourism. This can be achieved through conservation of natural, cultural resources sustainably and develop tourism for national prosperity and benefit of mankind through development of appropriate policies, strategies and guidelines; formulation and enforcement of laws and regulations; monitoring and evaluation of policies and laws. Through the Forestry and Beekeeping sector, The Ministry enhances the contribution of the forest and beekeeping sector to the sustainable development of Tanzania and the conservation and management of her natural resources for the benefit of present and future generations. The Ministry supports the development and implementation of practices such agroforestry and agroecology. However, through consultations made to Ministerial officials and some from TAFORI, the officials recommended for Agroecology related issues to be hosted and coordinated under the Ministry of Agriculture given its relevance and application.

c) Tanzania Agriculture Research Institute (TARI)

Tanzania Agriculture Research Institute (TARI) is an Institution dealing with undertaking research on agriculture related matters in the country. TARI is composed of nine (9) main centers and eight (8) sub centres in the country. The Institution aspires to be the Institute of Excellence for agricultural research in the country and beyond. It aims at generating and promoting application of knowledge, innovation and agricultural technologies as catalyst of change in achieving agricultural productivity, food and nutrition security, sustainable agriculture and economic growth involving stakeholders in the country and global community. It further aims to contribute to increased agricultural productivity through development and deployment of improved agricultural knowledge and technologies by adopting innovation systems approach. Since these are academic and research related Institutions, it will be a challenge to host, coordinate and monitor the implementation of the proposed Agroecology Strategy in the country.

d) Ministry of Agriculture Training Institute (MATI)

The Ministry of Agriculture Training Institute's in the country are the Agriculture education training institutes in the country that offers various agriculture-related training programs at Diploma and Certificate level. They also offer short courses on the related agriculture areas of expertise. There are fourteen (14) MATI's in the country offering different agricultural related courses. Much as they are mandated to offer various agriculture related courses, each of the MATI has its specific thematic area of focus (core area) to advance. For instance, MATI Katrin focusses on rice production related technologies and production, MATI Kilimanjaro focusses on rice irrigated agriculture, MATI Igurusi is mandated for irrigation and Land Use Planning practical works, while MATI Tengeru focusses on Horticultural crop production. Since these are academic related Institutions, it will be a challenge to host, coordinate and monitor the implementation of the proposed Agroecology Strategy in the country.

e) Sokoine University of Agriculture (SUA)

Sokoine University of Agriculture is a public University which offers academic agriculture related academic programmes in the country. SUA is guided by a number of education and training policies that provide a coherent philosophy for the development and management of education in Tanzania. Its academic business is guided by the university's vision and missions as well as the Corporate Strategic plans which spells out plans in keeping with university's core missions and functions as well as the need to remain competitive. The Vision of the university is to be a leading University in the provision of quality knowledge and skills in agriculture and allied sciences. The vision is guided through the mission, which aims to promote development in

agriculture, natural resources and allied sectors through training, research and delivery of services. At the moment, SUA implements the Agroecology Hub in Tanzania (AEHT) project which aims in undertaking multi-disciplinary demand-led research contributing to enhancing livelihoods and sustainable environment in rural communities through principles of Agro-Ecological Intensification (AEI). The hub seeks to provide a platform for various categories of stakeholders to participate in the promotion of AEI principles in Tanzania. Since SUA is an academic-related Institute, it will be a challenge to host, coordinate and monitor the implementation of the proposed Agroecology Strategy in the country.

5.0 MAINSTREAMING AGROECOLOGY IN THE NATIONAL POLICIES, PLANS AND INSTITUTIONS: EXPERIENCES FROM OTHER COUNTRIES

a) India

According to the Government's report titled Agroecology: India's Journey to Agricultural prosperity of 2015, India is hugely practicing agroecology in many parts of the country. Currently, there is a country's wake-up call for change of agricultural policies to integrate issues related to agroecology. This notable success is attributed to the people's particularly famers rational movement and advocacy for practicing agroecology Report on Agroecology: India's Journey to agricultural prosperity (2015). Several thousand peasant families from India have joined this movement, moving away from monoculture cash crop farming, to locally resourced, agroecological farming methods. As part of significances of agroecology, many farmers in India have minimised the need for financial loans required for agricultural modernization as a result of using on-farm natural resources, hence the zero budget. In Andhra Pradesh for instance, models of Community Managed Sustainable Agriculture (CMSA) have proved particularly successful amongst local farming communities and, as of 2011, were being practiced at a large scale across 3,500,000 acres, by an estimated 500,000. Farmers are trained in non-pesticide management and organic farming techniques over a period of four seasons farmers (Center for Human Rights and Global Justice, 2011).

In addition, due to its wild plant diversity, unique cropping systems and food and rural cultures, the Indian Government nominated the Zaheerabad region, in the Medak district of Telangana to become an AgroBiodiversity Heritage site (Deccan Development Society, 2010). Despite the region's harsh and dry landscape, the local people and farmers consume some of the country's most diverse and nutritious food, due to the agroecological practices they employ. The dietary diversity in this region is unique, with over 200 local varieties of cereals, millets, pulses, oil-seeds, fruits, vegetables, greens, roots, and tubers (Center for Human Rights and Global Justice,

2011). By wholeheartedly channeling its political, intellectual and economic will into becoming a global leader in agroecology, the Government of India is empowering the smallholder community at the heart of its agricultural system with the most powerful and scientifically advanced agricultural practices that exist today. In-so-doing, India will be carving out a pathway toward an agricultural transformation, not just for itself, but for every nation across the world. As such, a political will, social movement from farmers and other actors in the country have made it possible for agroecology to be widely practiced in the country; something worthy emulating and advocating for.

b) Ghana

Ghana has for long recognised the importance of agroecology for balanced and inclusive development. The mission of Ministry of Food and Agriculture (MOFA) in Ghana is to promote sustainable agriculture and thriving agribusiness through research and technology development, effective extension and other support services to farmers, processors and traders for improved livelihood. This mission is emphasized in almost all of MOFA's policies and plans (ActionAid, 2019).

Since MOFA and other relevant state agencies perceive these policies to represent sustainable agriculture and to some degree the core principles of agroecology, there has been a major push in advocating for agroecology issues in the country. To realise this intent, over the last decade, Ghana's government has formulated and implemented quite a number of policies aimed at transforming the country's economy and accelerating the pace of development. Even though many of these policies targeted all sectors of the economy, agriculture remained central because of the sector's contribution to employment, income and GDP in general.

To achieve all these for a widespread agroecology approach in the country, civil society and social movement actors in Ghana are collectively developing sets of strategies to build, define, and strengthen agroecology through public policies. Several literatures shows a review of policies and plans in Ghana which highlights concerted effort to co-opt agroecology and climate adaptation as options for fine-tuning industrial food systems and making them widely acceptable to an increasingly critical civil society and social movements calling for meaningful and binding commitments to agroecology. The cooptation of agroecology has fueled the swirling of policies based on catch phrases such as 'climate-smart agriculture', 'sustainable-' or 'ecological-intensification' and industrial monoculture production (ActionAid, 2019). In addition to this, The National Climate Change Policy (NCCP) of 2014 was based on situation analyses and outlined broad policy vision and objectives with respect to effective adaptation, social development and mitigation in Ghana. It envisioned low carbon growth, effective adaptation to climate change and

social development. The vision was to ensure a climate-resilient and climate-compatible economy while achieving sustainable development through equitable low-carbon economic growth for Ghana. Generally speaking however, though Ghana has been relatively successful in terms of articulating issues of agroecology and sustainable agriculture in policies and plans, gains resulting from the implementation of these policies and plans still has a lot to desire.

c) Senegal

In Senegal, the movement to advocate and have agroecology transformation working at multiple scale is carried out by Agroecological advocacy coalitions, comprising of farmers' organizations, scientists, NGOs, and International Organisations. Although the central government of Senegal has formally welcomed some of the principles of agroecology into their policy discourse, financial and political interests in pursuing a Green Revolution and co-opting agroecology are pending. As it stands currently, Senegal has developed policies, strategies and plans in the agricultural sector but none yet has explicit provision for agroecology development. Given the low awareness levels on agroecology in the country, concerted efforts are required to sensitize and educate the relevant stakeholders on the benefits of the practice through sustained advocacy campaigns, capacity building, and mainstreaming of agroecology into policies, curricula, programmes, development plans and strategies of governments and other practitioners.

Essentially, the history of the agroecological movement in Senegal is attributed to technical support and knowledge co-production, territorial governance, alternative food networks, and national policy dialogues. These multi-level approaches have worked effectively to sustainably transform the current food systems in sub-Saharan Africa. However, the limited agency of farmer organizations and the limitations of a movement that is strongly dependent on NGOs and international donors, leading to a "projectorate" situation in which contradictory policy actions can overlap. This leads to a lack of political and financial autonomy for grassroots farmers' organizations, limiting the development of counter-hegemonic agroecology. As such, there is need for strong advocacy, call for movements, awareness creation and pushing for agroecology agenda across levels and scales for its success in other parts of Africa, including Tanzania.

d) France

According to Lampkin et al (2020), France took a lead in the development of agroecology, both nationally and internationally, including as the lead sponsor of the first FAO Agroecology Symposium in Rome in 2014. This was done through Between 2012, steadily pursued a public policy aimed at significantly changing the way agricultural production is carried out in France by

the Minister of Agriculture, Stéphane le Foll. The public policy sought to organise collective changes in farmers' practices that would combine economic profitability and environmental performance. The use of "agro-ecology" by the Minister was partly opportunistic, influenced by two professional agricultural groups that both use the term: that of ecologically intensive agriculture and that of conservation agriculture (no-till techniques with permanent soil cover and crop diversification). France's national research institute, INRAE, designed a research agenda on agroecology in 2010, as well as other research institutions (e.g. CIRAD) making France a European and global leader in agroecology research. Agroecology was made successful through the inclusion of various support programmes for agricultural transformations that seemed compatible with the course set and with the term. This included support for organic farming and agroforestry as well as the reduction of antibiotics in animal husbandry, and sustainable beekeeping. In addition, it was through a political by-in where collective action was promoted and economic and environmental interest groups (GIEE) were recognised. The recognition of these groupings of farms facilitated access to French or European support schemes on agroecology.

d) United Kingdom

Agroecology in the United Kingdom has been promoted in different forms since the 1980s. From a natural science research perspective, the 'academic discipline' approach to agroecology is perhaps best represented by Rothamsted Research Institute's former Department of Agroecology, which was restructured in 2018 into Departments of Sustainable Agriculture and of Bio-interactions and Crop Protection. In 2011, Coventry University together with Garden Organic established what became the Centre for Agroecology, Water and Resilience (CAWR) in 2015. Unlike Rothamsted, this academic Centre also had a high representation of social scientists, with a strong focus on the potential for the socio-economic transformation of agriculture, reflected in CAWR's 'Mainstreaming agroecology' paper (Lampkin et al., 2020). At the farm level, the agroecology concept is promoted most actively by the Land workers' Alliance (LWA), representing the more radical vision of international organisations such as La Via Campesina, as well as by the Oxford Real Farming Conference and related initiatives. These initiatives have developed in parallel, and sometimes in close association, with organisations for organic farming and research, like the Soil Association and the Henry Doubleday Research Association dating back to the 1940s, or the Progressive Farming Trust founded in 1980, as well as initiatives for Permaculture, Agroforestry, Conservation Agriculture (Allerton Trust) and Integrated Farming (LEAF).

6.0 CONCLUSIONS AND RECOMMENDATIONS

While it is generally noted that there is no single policy, strategy or plan that explicitly explains about agroecology approach in the country, various policies, legislative frameworks, strategies and plans indirectly covers issues related to this approach. Through these documents, farmers, livestock keepers and fisherfolks in Tanzania are being advised to use various best agricultural practices that takes care of the environment while ensuring maximum/ enhanced agricultural productivity, livelihoods and economic prosperity of the country. Farmers use these guiding documents and they are guided to produce crops according to agro-climatic zones, agro-ecological zones as well as soils characteristics (64 soil characteristics) as per the soil classification system by Mlingano Agriculture Research Institute. In this case, they don't consider agroecology as a broader approach for agriculture production which encompasses various attributes in it.

As it stands currently, farmers are practicing agroecology by default, it's their tradition to do so. In practice, the study revealed that, in most villages in the country, farmer differentiate crops for domestic (food) consumption using agroecology practices and for commercial crops using non-agroecological practices such as monocultural (plantations) practices. However, some of the organisations in the country such as TOAM, SAT, MVIWATA, Vi Agroforestry and ICRAF among others have been pushing for agricultural practices that meet the needs of the poor farmers such as encouraging for crop diversification, crop rotation, agro-forestry, conservation agriculture, promotion of indigenous seeds and water harvesting practices including sustainable water and soil management practices.

Following responses from Key Informant Interviewees (KII), this study has navigated through several literature, reports and feedback from different sources and stakeholders. The study has revealed that agroecology is important for increased agricultural productivity, enhanced communities' livelihoods, food security, and poverty alleviation while ensuring environmental sustainability. The study results conform with the existing international, regional and national initiatives that are striving to ensure zero hunger, poverty eradication, response to climate change challenges, biodiversity conservation and management, economic empowerment and gender inclusivity.

While the Government of Tanzania has put several relevant policies, strategies, programs and Plans that favour agricultural productivity in the country, the concept of agroecology is not well and fully articulated in these legislative pieces. Similarly, there is no single mandated Ministry, Department or Agency that is solely mandated to deal with issues related to agroecology in the country. Given its importance and need to facilitate effective operationalization of agroecology in the country for

enhanced agricultural productivity, strengthened values chains, food systems, nutrition, communities' livelihoods, improved biodiversity conservation, acquisition of Ecosystem Services and ensure environmental sustainability, the analysis recommends the following:-

- There is a need to develop a sector-wide Strategy that emphasizes on the implementation of agroforestry approach for sustained agricultural productivity in the country. In realising its effective implementation, this approach should be advocated for and mainstreamed (integrated) in the sector strategies, programs, plans, guidelines, rules and regulations. This will not only ensure effective agricultural productivity but also ensure ownership and sustainability of the concept while ensuring other variables in the production chain sustainable.

- In addition to the Strategy, it is hereby recommended to have an action plan developed and implemented by different actors at the Regional and District levels through the coordination of PO-RALG. In this case, extension officers and lead (champion) farmers could be introduced to the concept and capacitated on how to implement agroecology and upscale in their respective areas of jurisdictions.

- It is hereby recommended that issues related to the agroecology approach be housed and coordinated within the Ministry of Agriculture under the Crop Development Division. While MoA houses agroecology, other relevant division, sections and units within the Ministry should provide support/ inputs to the Crop Development Division on matters related to agroecology for its prosperity.

- It is hereby recommended that, various Agriculture Sector Lead Ministries (ASLMs), Departments and Agencies (MDAs) integrate/ mainstream and institutionalise issues related to agroecology in their different strategies, programs and plans. The Agricultural Sector Lead Ministries (ASLMs), Departments and Agencies includes, MoA, PO-RALG, VPO, PMO – DRM, MoFP, MoLF, MoGCD, MoW, MoLHHSD, MNRT, MITI, National Food and Nutrition Agency, NIC, TARI, Research and Academic Institutions among others.

- It is hereby recommended to create and facilitate a platform for agroecological approach value-chain actors that informs the progress, opportunities and challenges for furthering the implementation and prosperity of the approach. In particular, there is need to form a team

of experts composed of multi-stakeholders to advise and oversee the development and implementation of agroecology in the country.

- There is a need to continue creating awareness among different stakeholders such as the Government Ministries, Departments and Agencies, private sector, NGOs and communities (farmers) on the importance of the agroecology concept as it covers broad issues that are critical for improved agricultural productivity in the country. This may also include developing training manuals for short-term and medium training as well as developing curricula on agroecology for schools and tertiary, colleges and higher learning Institutions. As it stands now, the concept is narrowly conceived as it is only emphasized on the Climate Smart Agriculture (CSA practices and technologies through a landscape approach while leaving other critical components within agroecology.

- There is a need to develop a “community of practice” that packages success stories and best practices that can be shared and disseminated in various places in the country for triggering off agricultural productivity while ensuring environmental sustainability. This community of practice should be context-specific; taking cognizance of the social, economic, environmental and contemporary vagaries that are affecting productivity and environmental sustainability.

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Annexes

KEY INFORMANT INTERVIEWS AS A CONTRIBUTION TOWARDS THE REVIEW OF POLICIES, PLANS AND INSTITUTIONAL SETTINGS FOR AGROECOLOGY TRANSFORMATION IN TANZANIA

Dear ……

Preamble & Context of the Survey

I hope that all is well with you. Wishing you all the best in your Holly Easter and Ramadhan fasting season 2022. May the Almighty God keep you safe and see us through these Fasting seasons, with strength, happiness and focus towards making our country and universe a better place to stay.

I have been requested by the Agricultural Non-State Actors Forum (ANSAF), which is a member-led national advocacy platform of national and international non-governmental organizations, "farmers" umbrella groups and commercial companies who are interested in the development of the agricultural sector in Tanzania to undertake a study/ survey in ***Reviewing the National Policies, Strategies, Plans and Institutional settings for Agroecology transformation in Tanzania***. The overall objective of the assignment is to carry out a quick analysis of policies, strategies, programs, plans and institutional settings for agroecological transformation in Tanzania and identify gaps, identify opportunities and recommend alternative options for streamlining the Agroecology agenda in Tanzania. ANSAF recognizes all national efforts toward ensuring agricultural productivity from all walks of life through the use of different agricultural technologies and practices. The organisation works to support the efforts of the Government of Tanzania in pursuit of development through influencing policy and practice change through learning, communication and advocacy.

This survey, therefore, seeks to gather information and inputs from various stakeholders and experts such as you, to provide inputs that will enable us to Identify gaps, opportunities and avenues for streamlining agroecology in the national policies, plans and Institutions in the country. You being an expert and a key stakeholder in this field, you are requested to provide responses commensurate to the questions provided in this survey. It should, however, be noted that the information provided to this survey will be treated with its utmost confidentiality as per the ethics, rules and regulations governing the administration of surveys. As such, please feel confident to provide your responses as per your understanding based on your professional expertise and experience. I will appreciate if this questionnaire is filled and returned back to me through ahenku71@gmail.com on or before **Tuesday, 24th April 2022** midnight. Your valuable time is acknowledged and highly appreciated. Thank you so much in advance to this cause.

A: ABOUT AGROECOLOGY IN TANZANIA

1. Are you aware of the term agroecology? YES/ NO **(please Bold your response)**.

2. If the answer is Yes to question 1, please describe, how you have been dealing with/ addressing it on your day to day undertakings in the pursuit to agricultural productivity.

   ……

3. In your opinion, what are the significances of agroecology for enhanced agricultural productivity in Tanzania?

   a) ……..

   b) ……..

   c) ……..

   d) ……..

4. In your opinion, what would you comment on the general practice and coverage of agroecology in Tanzania? Is it well adopted by many farmers, particularly smallholder farmers? Please provide examples.

   ……

B: NATIONAL POLICIES, STRATEGIES, PLANS AND INSTITUTIONAL SETTINGS ON AGROECOLOGY

5. In your opinion, to what extent has agroecology been covered/ addressed in the various relevant existing National policies? Please provide examples.

   a)

   b)

   c)

   d)

   e)

6. In your opinion, to what extent has agroecology been covered in the various relevant National **strategies**, **programs** and **Plans**? Please mention and describe accordingly.

   a) Relevant National Strategies:

   b) ***Relevant National Programs:***

c) ***Relevant National Plans:***

C: INSTITUTIONAL SETTINGS OF AGROECOLOGY TRANSFORMATION IN TANZANIA

7. In your view, what is the current Institution (Ministry, Department or Agency) under which issues related to agroecology are hinged and coordinated in the country? Please provide examples.

……...

8. In your views, which Institution(s) (Ministry, Department or Agency) would you propose to best coordinate issues related to agroecology in the country?

……
…….

D: EXPERIENCE FROM OTHER COUNTRIES ON AGROECOLOGY AND CONCLUSIONS

9. Are you aware of any country(ies) in Africa which has/ve a stand-alone policy on agroecology? Please mention.

.....

10. How have the institutional settings been, in the operationalization of the agroecology agenda in those countries (as mentioned in question 11)?

.....

11. In your opinion, what would you respond to the following three aspects in relation to agroecology transformation in Tanzania.

    a) Would you recommend having a Stand-alone National Policy on agroecology in the country? If ***Yes*** or NO, please provide a rationale/ justification for your response.

    ……..

    b) Would you recommend having a National Strategy on agroecology in the country? If ***Yes*** or NO, please provide a rationale/ justification for your response.

    ……..

    c) Would you recommend having agroecology issues mainstreamed/ integrated in different National policies, strategies, programs and action plans in the country? If Yes or ***NO***, please provide a rationale/ justification for your response.

    ……..

    d) Whichever modality you would recommend on agroecology, what institutional settings would you like to propose for the effective transformation of the agroecology agenda in Tanzania?

……

12. What enabling environment is useful for effective operationalization of the agroecology agenda in the country? Please mention and explain.

……..

13. Any other information that you may wish to share for the successful and effective operationalization of the agroecology agenda in the country.

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ONCE AGAIN, THANK YOU FOR YOUR VALUABLE TIME & TIMELY RESPONSE.

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