



Republic of Zambia

ZAMBIA FOOD SYSTEMS TRANSFORMATION PATHWAYS



THE
ROAD
TO — 2030

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FOREWORD

On 23rd September 2021, the UN Secretary-General António Guterres convened a Food Systems Summit as part of the Decade of Action to achieve the Sustainable Development Goals (SDGs) by 2030. The Summit launched bold new actions to deliver progress on all 17 SDGs, each of which relies to a greater degree on **healthier, more sustainable and equitable food systems**.

I take note of the President of The Republic of Zambia Mr. Hakainde Hichilema who made a commitment at the UN Food Systems Summit on 23rd September 2021 in New York, USA; stating that **Zambians must be food and nutrition secure at all times**. Along this commitment, Her Honour Mrs. W. K. Mutale-Nalumango MP underscored this message by undertaking various engagements at national, continental and International levels to share best practices and providing leadership to raise the importance of food and nutrition in national development; in line with the mandate in the National Food and Nutrition Act No, 3 of 2020.

Following the dialogues held before and after the UN Food Systems Summit as stated above, Zambia continued to consult and refining the pathways. The outcome of the dialogue process is **Zambia's Food Systems Pathways document**, which is a blueprint that aligns Policies, Programmes and Stakeholder interventions towards attaining the Zero Hunger target (Sustainable Development Goal No. 2). This broad Policy document outlines measures that are critical to ending hunger in the country; an aspiration which is translated in the Eighth National Development Plan 2022 – 2026 in line with the Food and Nutrition Act No. 3 of 2020.

Under the Governance framework established in the above-mentioned Act, my Office supported the Office of the Vice President in providing the leadership necessary to ensure that Zambia's five Pathways and Implementation Plan are aligned to the UN Food Systems Action Tracks and Pathways, with the view of meeting all the 2030 Sustainable Development Goals.

I am happy to note that each recommended Pathway highlights the critical priority actions towards Vision 2030; with possibilities for reviews as need arises. Further, I note with interest that throughout the consultations and dialogue phases, multi-stakeholder interactions and reflections on relevant policies, and government commitments were considered in actualising the recommended pathways. Specifically, the five Pathways are 1: Ensuring access to safe and nutritious foods for all; 2: Shifting to healthy and sustainable consumption patterns; 3: Boosting nature-positive food production; 4: Advancing equitable livelihoods of people involved in the food system; 5: Building resilience to vulnerabilities, shocks and stresses.

In view of the foregoing, it is gratifying that, in line with the Pathways, Cabinet adopted the “Feed Zambia – Zero Hunger Project”, as a flagship intervention led at higher level, by the Republican Vice President. This Project will showcase the implementation of the five pathways, as a test case of implementing this blueprint.

Going forward, this blueprint on the national pathways, therefore, provides a great opportunity for the country to transform Zambia's food systems; and firmly **establish nutrition as a fundamental outcome of implementing the pathways**, noting that the proposed actions are aligned with the food and nutrition priorities outlined in the Eighth National Development Plan 2022 – 2026 (8NDP); and that the transformations are inclusive and equitable to ensure **nutritious foods and healthy diets for all**.

In view of the above, all stakeholders are called upon to intensify public awareness measures about the importance of nutrition in national development; and ensure that *food and nutrition* stays high on the agenda across all Sectors, Ministries and Spending Agencies including activities undertaken by non-state actors.

The mapping of the SDGs to the Pathways and implementing institutions is already an innovation and transformation from the past

Now that the Pathways towards implementing the UN Food Systems transformation agenda have been internalised in the country's development plans and action plans of line ministries, I call for urgent and focused attention and implementation for results, across board.

The 2023 UN Food Systems Stocktaking +2 meeting in Rome in July 2023 provides an opportunity to review progress made after the Summit dialogues. The Voluntary report, to this

where attaining Zero Hunger was looked at in isolation from SDGs and role players in the country.

effect, has been submitted ahead of the Stocktaking +2 meeting. This will provide input to the upcoming UN Food Systems Summit to be held during the UNGA meeting in September 2023. This is an important benchmark for reporting Zambia's progress in implementing all the Pathways. I count on the support of the UN Country Team to continue backstopping and supporting the preparations for 2023 and 2025 events.



Patrick K. Kangwa

SECRETARY TO THE CABINET

ACKNOWLEDGMENTS

As UN Food Systems National Dialogues Convenor, I am honoured to present Zambia's Food Systems National Dialogues Pathways and Implementation Plan which began with the National Launch in Kafue District on 19th May 2021 followed by engagements in selected Provinces and districts in Eastern, Western and Luapula Provinces; in addition to dialogues at national level.

The National Food and Nutrition Commission under the guidance of the Ministry of Health and the Office of the Vice President served as Secretariat for dialogues and engagements since 2021. Accordingly, Ministries and government institutions in food systems, Development Partners, UN agencies, private sectors, investors, civil societies, women organizations and youth organizations that were part of this team are sincerely thanked for their incomparable support. The Commission received financial and technical support which assisted in organising all events countrywide. In order to enrich the dialogues and other processes, I was privileged to receive guidance from the UN System technical team at SADC, Africa and Global levels.

This document could not have been accomplished without input and support from Ministries and their Agencies dealing directly and indirectly with Food Systems; and the UN Country Team. Further engagements were undertaken in the preparations and hosting of national food systems dialogues to ensure alignment with the UN Summit objectives / action tracks. In this regard, credit also goes to SADC, The African Union Agency (AUDA-NEPAD) who provided backstopping and trainings for Convenors as part of the Dialogues including the input from The UN Special Envoy for Food Systems Summit 2021, Dr. Agnes M. Kalibata and technical team of experts.

Our special appreciation goes to the National

Technical team members under the leadership of the Mr. Patrick K. Kangwa, Secretary to the Cabinet and Mrs. Lillian M. Kapusana, Permanent Secretary responsible for Administration in the Office of the Vice President for providing guidance and support to the work of the National Convenor.

I would also like to express my indebtedness to the technical committee members (from ministries such as Health, Agriculture, Fisheries and Livestock, and Finance), the Indaba Agricultural Policy Research Institute (IAPRI), Civil Society Organization Scaling Up Nutrition, and United Nations agencies (FAO, WFP, UNICEF, WHO, UNDP, and IFAD), as well as GIZ, for their contributions to the food system dialogues at national, regional, and selected district levels, i.e. districts in all ten provincial centres in Zambia, to name a few. The devotion of individuals who participated in the dialogues from all sectors, including the media, research, Academia, and other independent organisations is extraordinary, without which this process would not have been possible.

Finally, I want to thank the provinces and districts that participated in the dialogues for their excellent contributions. Therefore, this document is the result of everyone's hard work, dedication and the contribution to attaining zero hunger in Zambia.



Victor Mbumwae

NATIONAL CONVENOR

**UN FOOD SYSTEMS NATIONAL
DIALOGUES**

**DIRECTOR, PLANNING AND
INFORMATION DEPARTMENT,**

OFFICE OF THE VICE PRESIDENT

EXECUTIVE SUMMARY

The United Nations Food Systems Summit is a call by the United Nations Secretary-General to world leaders and other critical food systems players to stimulate transformative actions as part of the Decade of Actions to achieve all 17 Sustainable Development Goals (SDGs) by 2030. The roadmap was developed for undertaking broad-based country consultations on the Food systems, launched by Her Honour, the former Republican Vice President, on 19 May 2021 in Kafue District of Lusaka province. In preparation for the FSS, the Government of Zambia and district dialogues involving stakeholders from across the entire food system in selected districts and in all the ten provincial centres from 16 August to 13 September 2021. The process was coordinated through the National Convenor from the Office of the Vice President and the Ministry of Agriculture as the curator working with a technical working group from Ministry of Health (MoH), Ministry of Agriculture (MoA), Ministry of Fisheries and Livestock (MFL), Ministry of Finance, Ministry of Finance and National Planning (MoFNP) and the National Food and Nutrition Commission (NFNC). These were supported by technical staff from United Nations agencies (FAO, WFP, UNICEF, WHO, UNDP and IFAD) through the coordination of the United Nations Resident Coordinator and FAO. Other key partners were GIZ and Indaba Agricultural Policy Research Institute (IAPRI).

The dialogues revealed that Zambia's food systems are complex, multidimensional and highly interconnected with challenges such as:

- Lack of awareness of safe and nutritious foods characterised by low production of diversified and nutritious foods, low availability and affordability of healthy and nutritious foods;
- High prices for sustainably produced foods manifested by unhealthy and unsustainable consumption patterns of cheaper food options, particularly in an urban setting, limited diversity in production and supply of nutritious foods, limited value addition and utilisation, high food wastage, and unregulated enabling environment for food;
- The degraded natural environment that limits nature-positive food production is characterised by rampant burning of fields and deforestation, inadequate capital among small-holder farmers and local small-scale enterprises to invest in nature-positive production such as organic farming, conservation farming, hydroponics, and Limited knowledge among farmers on nature-positive production and natural resource management;
- Persistent inequalities that affect the income-earning potential and engagement of vulnerable groups (women, children, elderly and differently-abled) in economic activities and sustainable livelihoods are characterised by poor access to markets, financial services and information, especially in rural areas, economic activities, limited access and ownership of land, agricultural assets, and income by vulnerable groups such as women and youths, limited access to income/capital to start-up economic activities and inappropriate/poor targeting of developmental interventions; and
- Limited resilience to systemic vulnerabilities, shocks and stresses occurring in the country and disaster-prone districts, including emerging challenges posed by COVID-19. An ineffective early warning system and slow adoption of climate-smart agriculture and other climate adaptation measures characterise these.

1. INTRODUCTION

The global hunger index report (2021) shows that Zambia is among the countries with severe food insecurity in the general population, at 51.4 per cent. 35% of children under five are stunted, 4% are wasted, 12% are underweight, and 5% are overweight (ZDHS, 2018). Policies have not sufficiently supported poverty reduction and hunger eradication in rural and peri-urban areas (SNDP, 2017-2021). Equally, the agriculture system has many challenges, such as low agricultural productivity of nutrient-dense foods, lack of awareness of safe and nutritious foods, high costs of healthy diets, a degraded natural environment limiting nature-friendly food production initiatives, insufficient market access, and inadequate financial support for agricultural activities, particularly among small scale farmers. These challenges make it impossible to meet the nutritional needs of a rapidly growing population (IPC-Acute Food Insecurity Analysis, 2020). To mitigate the above challenges and accelerate the reduction of malnutrition, the Government of the Republic of Zambia prioritised nutrition in national development policies and plans such as the National Food and Nutrition Policy (2006), the National Food and Nutrition Strategic Plan 2017-2021 and the National Development Plans, national agricultural policies, agricultural strategic plans, agricultural investment plans, and the National Food and Nutrition Strategic Plan. With a call to SDG 2, which calls for transformations in agriculture and food systems to end hunger, achieve food security and improve nutrition by 2030, Zambia undertook national and sub-national dialogues on the transformation of the food system towards zero hunger in line with the SDG 2-ZERO Hunger and achieve food security and nutrition by 2030 and in line with Zambia's Vision 2030.

1.1 Pathways Development Process

The document "National Dialogue on Food System Transformation to Feed Zambia's Zero Hunger" culminated from numerous consultations with local and UN agencies (FAO, WFP, UNICEF, IFAD, and UNDP), GIZ, Civil

Society Organizations, Non-Governmental Organizations, traditional leaders, and National and Sub-National Dialogues across the Country. Finally, a report called "Feed Zambia Zero Hunger: Pathways to a Sustainable, Resilient, and Equitable Food System for Zambia" was produced. These are;

Based on extensive stakeholder consultations at the district level, Food Systems dialogues at sub-national and national level, the government has developed five pathways linked to the United Nations Food System Summits Action Track thematic areas. The five critical pathways provide game-changing solutions for achieving the Feed Zambia-Zero Hunger Vision 2030, which aims to ensure that the entire population is well-fed and no one goes hungry. Furthermore, the agro-ecological production methods are climate robust, resulting in minimum environmental and biodiversity deterioration.

2. ZAMBIA FOOD SYSTEMS PATHWAYS

2.1. Pathway 1: Ensuring access to safe and nutritious foods for all

Like many other nations in the region, Zambia is falling short of the World Health Organization's nutrition and SDG 2 targets, with crucial indicators showing children's stunting at 35% (ZamStats, 2020). Additionally, more than 90% of Zambia's population consumes fewer than five servings of fruits and vegetables daily, with fruits ingested 2.1 days per week and veggies taken 6.3 days per week (MoH, 2017). To this effect, ending hunger (Statistics) and dietary-related non-communicable diseases (SDGs 2, 3, and 12) will not be achieved in the face of current challenges such as a lack of awareness about safe and nutritious foods, inadequate knowledge of sustainable food production methods; and a large proportion of small-holder farmers relying on rain-fed agriculture production and limited agricultural diversification. This pathway prioritises the following actions;

Key priority actions towards 2030

- 1) Hasten the implementation of the National Food and Nutrition Act of 2020 to facilitate effective coordination and collaboration among stakeholders and the scaling up of nutrition-specific activities.
- 2) Promote and invest in crop diversification (from maize mono-cropping to various climate-resilient crops such as cowpeas, Pigeon peas, Bambaranuts, sorghum and millets).
- 3) Build agro-processing centres or facilities, agro-storage hubs, and value-added perishable food production across all agro-ecological zones.
- 4) Promote agricultural, livestock and fisheries diversification in line with the recommended six food groups in the Zambia Food-Based Dietary Guidelines (viz a vis) and promote crop and climate-resilient livestock production.
- 5) Increase access to finance, provision of financial literacy training for farmers (through extension services), and low-interest (digital) form
- 6) agricultural financial services, incl. agricultural insurance and other incentives to increase capital, diversify production and stimulate small-holder farmers
- 7) Stimulate investment by public-private partnerships in agro-processing to boost local, regional, and international trade for small and medium-scale value-added agro-commodities (innovative cold chain technology and processing equipment).
- 8) Engage and support public-private partnerships in agro-processing and value addition for perishable foods across all agro-ecological zones (e.g. innovative cold chain technologies and processing equipment).
- 9) Support small-scale community-level agro-processing and value addition using simple technologies, particularly for women in support groupings, e.g. cooperatives.
- 10) Advocate for mandatory large-scale fortification of complementary foods (IYC), salt, cereal flour, rice, and cooking oil.
- 11) Increase funding to popularise irrigation technologies, dam construction and rehabilitation, and strengthen low-cost water harvesting infrastructure.
- 12) Strengthen the capacity (specific skills and logistical support) of extension workers to provide more effective professional service delivery in Agriculture and Livestock and aquaculture practices through curricula reviews.
- 13) Promote private-sector investment and participation in disease/ pest control by developing drugs, vaccines, biosecurity infrastructure, research and innovations to curb livestock and fisheries disorders.

2.2 Pathway 2: Shifting to Healthy and sustainable consumption patterns

The general population is characterised by insufficient and inadequate information about healthy diets and low awareness of and appreciation of consuming healthy, nutritious meals (NFNC, WFP, 2019). Food security is considered linked to output-oriented policies centred on maize. The cost of eating healthy is high, with 54 per cent of the population unable to afford a nutritious diet (NFNC, 2021). This is exacerbated by population growth due to urbanisation and changing lifestyles, which has resulted in dietary patterns changing, with an increase in processed foods high in sugar, salt, and fats and a decrease in the consumption of fruits and vegetables (MoH, 2017). To address these challenges, this pathway prioritises the following actions;

Key priority actions towards 2030

- 1) Advocate for raising consumer awareness and promoting sustainable expenditure and consumption of safe, healthy, nutritious foods through intensive advocacy and consumer and retail sensitisation through social and behaviour change communication (SBCC) in different population settings (rural/urban).
- 2) Operationalise the Food-Based Dietary Guidelines (FBDG) and promote the consumption of six food groups using locally available nutritious foods through Social Behavioural Change Communication (SBCC).
- 3) Promote and support the growing of horticultural crops and the use of cold chain storage technology to increase the availability of fruit and vegetables throughout the year.
- 4) Revamp farmer training centres nationwide and equip them with appropriate training facilities to adapt new agri-practices and storage /processing technologies to add value at the farm level.
- 5) Raise public awareness and enforcement of food safety laws that support the promotion of food safety, including Food Safety Act No 7 of 2019, Fisheries Act No 22 of 2011, and SI No 48 of 2006
- 6) Enforce laws and regulations against the selling and marketing unhealthy foods, and promote consumer-friendly front-of-package labelling for healthier goods, such as the Good Food Logo, while incentivising nutritious items with low taxes and subsidies.
- 7) Intensify promotion of fortified/biofortified food consumption among the general public (orange-fleshed sweet potatoes, iron-rich legumes, and orange maize).
- 8) Support improving the quality of food consumed at school (including school

meals) and expanding the home-grown school meal programme.

- 9) Enhance dietetic services in primary health care facilities across the country. This includes strengthening Nutrition - Dietetics tertiary education so practitioners can work in all healthcare settings.
- 10) Upscale SBCC to popularise the consumption of indigenous/traditional foods, particularly climate-resilient crops (Sorghum and millets, cassava and legumes (Cowpeas, Bambara nuts).

2.3 Pathway 3: Boosting nature positive food production

Zambia's household food and nutrition security is compounded partly by limited knowledge of nature-friendly food production systems and natural resource management. The dialogues revealed that the current food production systems are marred by unsustainable agricultural practices, including high food loss and waste affecting all the four FSN pillars, low agricultural diversity for both crops and livestock, insufficient market access, limited access to affordable financial services for small-scale farmers, a high prevalence of crop and livestock diseases, an underdeveloped livestock and fisheries sector with a low ratio of agricultural extension service to farmers. This pathway aims to integrate climate-responsive farming systems to improve food supplies, combat hunger, and promote health and well-being (SDGs 1, 2, 3, and 10) while utilising resources more efficiently and sustainably (SDGs 12, 13, 14, 15). This pathway prioritises the following actions;

Key priority actions towards 2030

- 1) Promote climate-smart agriculture (CSA) practices such as conservation agriculture and integrated agricultural farming systems (IAFS), aquaculture and sustainable capture fisheries, as well as organic farming and other agro-ecological farming methods, among commercial and small-holder farmers.

- 2) Promote efficient utilisation of non-wood food products, agroforestry, agro-ecological and aquaculture techniques, and sound agricultural practices such as sustainable soil management, crop rotation, and diversification among small-scale farmer
- 3) Promote crop and climate-resilient livestock and fisheries production for climate-vulnerable agro-ecological zones.
- 4) Incentivise small-holder farmers and small-scale local businesses to adopt and integrate CSA and nature-friendly agricultural production practices.
- 5) Provide an effective Early Warning System (EWS) to promote climate-resilient cropping, livestock and fisheries systems (particularly in Regions I and II with minimal rains below 800mm per year).
- 6) Promote using indigenous crops, livestock and fish species to conserve biodiversity while harnessing valuable inherent traits.
- 7) Finance and expand agricultural research on nature-positive production (participatory breeding, seed systems) by providing financial and non-financial incentive mechanisms for commercial, small-holder farmers, and local small-scale enterprises that practice nature-positive production activities.
- 8) Engage the private sector to improve the availability of inputs for producing climate-adapted and nutritious foods.
- 9) Create financial models that address the challenges of lack of collateral among the small-holders, such as village banking and rural savings groups. These will ensure financial inclusion.
- 10) Redesign the Farmer Input Support Programme (FISP) and Livestock and Fisheries to create a policy to subsidise inputs for positive nature production.
- 11) Connect small-holder farmers to green funding options, including carbon credits, and maximise the use of lead farmers and other community champions to promote nature-friendly production.
- 12) Upscale and popularise the use of e-Extension through mass and social media platforms.
- 13) Build capacity in extension staff and farmers on nature-positive production and natural resource management complemented by re-orienting in-service staff.
- 14) Employ additional extension workers to meet the recommended extension worker-to-farmer ratio (1 to 400) and increase budgetary allocation and releases for extension services.
- 15) Stimulate small, medium and large-scale farmers and the private sector to invest in fodder production and create demand for fodder among small livestock producers.
- 16) Unsustainable Capture fishing practices through the use of un-prescribed fishing gears and technologies.
- 17) Boost funding for low-cost water harvesting infrastructure, dam construction and rehabilitation, and irrigation technology popularization.
- 18) Provide alternatives regional community management schemes on capture fishing and complement it with alternative livelihoods based on regional potential, e.g. rice farming and aquaculture. (Fisheries Act Number 22 of 2011).

2.4 Pathway 4: Advancing equitable livelihoods of people involved in the food system

Food security and nutrition situation at the global level estimated that there are nearly 690 million

people worldwide who are hungry, or 8.9 per cent (FAO- World 2020). The region faces challenges such as unequal access to land and economic resources, aggravated by the country's high poverty rate of 54 per cent (NFNC, 2021). This pathway focuses on resolving inequitable livelihoods for marginalised groups in the agricultural food chain (female, young, and seasonal workers), as well as ensuring that no one is left behind in the transformation of the food system. This pathway prioritises the following actions;

Key priority actions towards 2030

- 1) Review land tenure and provide fair access to enable a robust and sustainable food system transformation.
- 2) Review and develop policies advancing equitable livelihoods for vulnerable and marginalised groups in the agricultural food sector (women, youth, seasonal workers, people with disabilities and older people).
- 3) Promote financial literacy initiatives and alternative livelihoods for farmers and small businesses according to regional potential and in line with National Financial Inclusion Strategy and the National Strategy on Financial Education for Zambia 2019-20240.
- 4) Create an enabling environment for financial lending institutions to provide low-interest (digital) financial services as alternatives for vulnerable low-income people, particularly vulnerable groups (Low-income, young people, women, and people with disabilities).
- 5) Review the effectiveness of existing government policies and criteria for recipients of social cash transfers and other support systems and strengthen the monitoring system.

2.5 Pathway 5: Building Resilience to Vulnerabilities, shocks and Stresses

Global climate change, rarer disasters, and other risks affect the most vulnerable. Moreover, challenges include recurrent droughts, floods, pests and illnesses (human, livestock, and agricultural); inefficient early warning systems; activities; and low adoption of climate-smart agriculture and other climate adaptation methods. This pathway prioritises the following key actions;

Key priority actions towards 2030

- 1) Promote the diversification of crop species and genetic resources at the landscape level to improve small-scale farmers' resilient livelihoods while reconsidering "traditional crops" along the whole commodity chain (from production to consumption).
- 2) Promote the adoption of climate-smart agricultural practices, such as using climate-resilient crops (sorghum, millets, cassava, and legumes such as cowpeas and Bambara nuts) to strengthen the food system's resilience against climate change, natural disasters and unforeseen crises.
- 3) Provide farmers with agriculturally targeted technical assistance to improve their production strategies. E.g. climate-resilient crops and livestock production).
- 4) Enhance institutions' Early Warning System capabilities and promote climate-resilient cropping systems in Regions I and II with minimal rains below 800mm per year (grain sorghum, millet, cassava, livestock, forestry and fisheries, and products).
- 5) Upscale weather-based index insurance protects small-holder farmers through protracted dry spells/droughts and floods.

- 6) Increase investment in coordinated surveillance for pest control and management. Upscale the proportion of men and women engaged in agriculture with access to macro and microcredit financial services.
- 7) Expand the creation of local food banks, especially in disaster-prone areas, to help people cope with shocks and unforeseeable disasters.
- 8) Initiate programmes/policies that support women and youth empowerment to enhance preparedness and resilience to vulnerability, shocks and stress.

3. CONCLUSION AND NEXT STEP

The proposed transformation pathways are aligned with the food system transformation agenda to achieve the 2030 SDGs targets. The document remains flexible to tap into future developments and opportunity for implementation of the Pathways.

4. ANNEXES

Table 1: Key Strategic focus of the pathway in short and long term

PATHWAY ≈: ACTION TRACKS	PRIORITY TARGETS >> 3 YEARS	IG-TERM STRATEGIES>>>2030
<p>Pathway 1≈: Ensuring Access to safe and nutritious foods for all Pathway</p>	<ul style="list-style-type: none"> • Promote crop diversification (from maize mono-cropping to various crops such as soybeans and groundnuts) and climate-resilient –crops, e.g. cowpeas, Bambara nuts, sorghum and millets. • Engage and encourage public-private partnerships in agro-processing and value addition in zones with highly perishable products (e.g. innovative cold chain technologies and processing equipment). • Develop Zonal post-harvest technology storage infrastructure, i.e. Cold chain storage systems, road network from production areas to market/storage facilities, and food processing facilities. • Hasten the implementation of the National Food and Nutrition Act to facilitate effective coordination and collaboration among stakeholders and the scaling up of nutrition-specific activities. • Raising consumer awareness and promoting 	<ul style="list-style-type: none"> • Strengthen sustainable supply and value chains in the agriculture and food sector and reduce post-harvest and food losses. • Promote water harvesting techniques to enhance water resource management • Provide adequate training in food safety, Good Agricultural • Promote practices and the use of safe pesticides, herbicides, drugs and antibiotics, especially among small-scale farmers • Upscale social protection programmes with appropriate targeting of beneficiaries • Prioritise Investment in R&D, Extension, Aquaculture, Livestock, Market linkages, Innovation • Stimulate and support the development of out-grower schemes to provide raw materials for processing based on agro-ecological potential.

	<p>sustainable consumption of safe, healthy, nutritious foods through intensive advocacy and consumer and retail sensitisation through social and behaviour change communication (SBCC).</p> <ul style="list-style-type: none"> • Raise public awareness and enforcement of food safety laws that support the promotion of food safety, including Food Safety Act No 7 of 2019, Fisheries Act No 22 of 2011, and SI No 48 of 2006, further providing suitable platforms to enhance awareness. • Encourage commercial lending institutions to provide low-interest financial services to increase access to finance for small-holder and medium-scale farmers to stimulate agricultural diversification. • Increase access to dams and irrigation infrastructure and increase investment in Irrigation Infrastructure using low-cost technologies. • Build capacity of food and nutrition officers, service providers, and agric-extension officers. 	
<p>Pathway 2≈: Shifting to Healthy and sustainable</p>	<ul style="list-style-type: none"> • Create enabling policies environment and support (Food trade & Marketing) 	<ul style="list-style-type: none"> • Upscale /promote Nutrition sensitive agriculture (FAO, 2014) incorporating SBCC,

<p>consumption patterns</p>	<p>for Climate resilient crops, e.g. sorghum, millet, cowpeas, Bambara nuts and groundnuts.</p> <ul style="list-style-type: none"> • Upscale SBCC aggressively and consumer sensitisation behaviour change towards health benefits of these CRS products, food preparation and popularise the consumption of indigenous/traditional foods • Popularise the Food-Based Dietary Guidelines (FBDG) • Tax nutrient-poor foods and subsidise nutrient-rich foods • Non-tax incentives for agro-processing equipment • Increase R&D on low-cost food processing, preservation and storage technologies in fruits and vegetables, fish and meat products. • Upscale biogas technology to recycle food waste and invest in research to explore other low-cost alternatives 	<p>Nutrition Education on benefits of healthy eating behaviour change.</p> <ul style="list-style-type: none"> • Revamp farmer training centres and equip them with appropriate training facilities; CDP in good agric-practice and storage-processing techniques. • Promote cropping systems that enhance nutritional diversity, e.g. Breeding nutritious crops such as biofortified Orange maize, Orange potato, seed mineral (Iron & Zinc), Beans, Cowpeas, Lentils, Pearl millet, rice and wheat cultivars). • Promote Investment in R&D seed breeding and post-harvest loss reduction strategies, including processing. • Review/Formulate policy to support women farmers' livelihoods in Smart agriculture, value addition and marketing of perishables goods.
<p>Pathway 3≈: Boosting Nature positive food production</p>	<ul style="list-style-type: none"> • Efficient use of water resources, including building water harvesting dams for irrigation and animal uses • Promote agroforestry and use of integrated farming systems where the food waste from an enterprise can be used for recycling as input for use in farming. • Upscale E-Extension through mass and social media platforms 	<ul style="list-style-type: none"> • Realign agricultural innovation systems to address climate change • Strengthen extension services to prioritise the capacity building of farmers on nature-positive production and natural resources management. • Review the country's land and forestry policy and legislation based on participatory approaches.

	<ul style="list-style-type: none"> • Introduce formal financial incentives mechanism for small-holder farmers and local small-scale enterprises practising nature-positive production complimented by financial literacy • Cross-cutting AT #2 intervention applies in this action tract. • Broaden the application of climate-smart agriculture practices • incentivise and Integrate agricultural finance to climate-friendly agricultural practices as your transition from traditional agriculture to CSA practices 	<ul style="list-style-type: none"> • Promote Precision Agriculture based on " site-specific data: soils, crops, nutrients, pests, moisture or yield, for optimum profitability, sustainability, and protection of the environment. • Strengthen the research component on local seed systems to avoid genetic erosion (loss of indigenous biodiversity)
<p>Pathway 4≈: Advancing Equitable Livelihoods of people involved in the food system</p>	<ul style="list-style-type: none"> • Strengthening the advocacy function of the agricultural products association for access to farmers', micro, small and medium enterprise financial inclusion • Review and develop policies advancing equitable livelihoods for marginalised groups in the agricultural food sector (female, youth, seasonal workers) • Introduce affordable formal (digital) financial lending and saving opportunities for low-income groups, especially vulnerable groups (young people, women, and people with disabilities) • Intergrade shock-responsive and nutrition-sensitive social protection programme 	<ul style="list-style-type: none"> • Strengthen labour regulations by Placing People's dignity and rights at the centre. • Review land strengthening land tenure and equitable access to land can lead to sustainable and resilient food systems.

Pathway 5: Building resilience to vulnerabilities, shocks and stresses

- Build strategic and emergency food reserves to facilitate effective management of climate shocks in all regions/districts.
- Build capacity in extension staff in interventions strategies in the face of disaster preparedness
- Enhance institutions' Early Warning System capabilities and promote climate-resilient cropping systems in Regions I and II with minimal rains below 800mm per year (grain sorghum, millet, cassava, livestock, forestry and fisheries, and products).
- Develop water and sanitation infrastructure that is climate resilient and climate-smart, such as resilient roads for emerging hazards like flash floods.
- Adopt cropping systems that enhance nutritional diversity, e.g. Breeding nutritious crops such as biofortified Orange maize, Orange potato, seed mineral (Iron & Zinc), Beans, Cowpeas, Lentils, Pearl millet, rice and wheat cultivars).
- Additionally, crop-breeding programs must consider farmer and market trait preferences.
- Create and strengthen mapping technologies to foresee natural disasters and
- Creation of Food Systems' Resilience Policy and Action Plans 2021- 2030 to address resilient food systems,
- Promote Precision agriculture (P.A.) and CSA agricultural in low rainfall zones (Zone I and II) (I.e. Precision agriculture "increases crop yields while reducing the inputs" (land, water, fertilisers, and biocides) required to grow crops.
- Review land utilisation policies to address climate. Resilient Small-Scale Agriculture Sector
- Advocate for Policy review and formulations on new to address preparedness, including tailoring the food system to tailored to nutritionally sensitive and climate-resilient crops in low-rainfall areas.
- Build capacity in extension staff in disaster management and farmers on nature-positive production and natural resource management complemented by re-orienting in-service staff.

pinpoint potential hotspots for disasters and natural calamities.

Table 2. Linking National Pathway Targets to 17 Sustainable Development Goals

Pathway	ZAMBIAN NATIONAL PATHWAYS (ZNP) TARGET	ZNP-IMPACT ON SPECIFIC SDGS
Pathway 1≈: Ensuring Safe and Nutritious Foods For All Pathway	<ul style="list-style-type: none"> Strengthen sustainable supply and value chains in the agriculture and food sector and reduce post-harvest and food losses 	SDG 1: No Poverty SDG 2: Zero Hunger SDG 3: Good Health and Well-being SDG 10: Reduced Inequality
Pathway 2≈: Shifting to Healthy and Sustainable Consumption Patterns.	<ul style="list-style-type: none"> Raising consumer awareness and promoting Sustainable consumption of healthy foods 	SDG 3: Good Health and Well-being SDG 12: Responsible Consumption and Production
Pathway 3≈: Boosting Nature Positive Food Production	<ul style="list-style-type: none"> Promote climate-friendly production practices, efficient use of water resources Sustainable Use of natural resources 	SDG 6: Clean Water and Sanitation SDG 7: Affordable and Clean Energy; SDG 13: Climate Action SDG 9: Industry, Innovation and Infrastructure
Pathway 4≈: Advancing Equitable Livelihoods Of People Involved In The Food System	<ul style="list-style-type: none"> Develop more comprehensive policies and measures for disadvantaged groups in the agricultural food sector (female, youth, seasonal workers) 	SDG 1: No Poverty SDG 4: Quality Education SDG 5: Gender Equality SDG 8: Decent Work and Economic Growth, SDG 10: Reduced Inequality SDG 16: Peace and Justice Strong Institutions
Pathway 5≈: Building Resilience to Vulnerabilities, Shocks and Stresses	<ul style="list-style-type: none"> Strengthening the resilience of the food system against climate change, natural disasters and unforeseen crises 	SDG 2: Zero Hunger SDG 9: Industry, Innovation and Infrastructure SDG 11: Sustainable Cities and Communities SDG 13: Climate Action SDG 17: Partnerships to Achieve the Goals

Table 3. Mapping Pathways with SDG and stakeholders

PATHWAYS	SDGs	STAKEHOLDERS
Pathway 1≈: Ensuring safe and nutritious foods for all pathway	SDG 1: No Poverty SDG 2: Zero Hunger SDG 3: Good Health and well-being SDG 10: Reduced inequality	NFNC; FAO; UNICEF; WHO; WFP; GIZ; IFAD, USAID; World Bank; MFNP; MCDSS; MLG; MCTI; MoA; MSE; MTS; ZABS; Nutrition Line Ministries and Nutrition CPs; Research Institutions; Academia; Micro financial Institutions; Bankers Association of Zambia (BAZ); ZNFU; Fortification Alliance; WorldFish; Zambia Development Agency; Industrial Development Corporation; Private Sector, Zambia Cooperative Federation; Competition & Consumer Protection Commission
Pathway 2≈: Shifting to healthy and sustainable consumption patterns.	SDG 3: Good Health and Well-being; SDG 12: Responsible Consumption and Production	NFNC; WFP GIZ, UNICEF, MEDIA, MOE, CSOS/ NGOS MSME, FAO, MFNP, MCTI, USAID, ACADEMIA AND RESEARCH, LINE MINISTRIES; MST, NISIR, NTBC, PRIVATE SECTOR; CONSULTING FIRMS, ZAM, MOA, TRADERS, CCPC, MFNP, FOOD PROCESSORS, WHOLESALERS; ZABS, CCPC, MISA ZAMBIA; MCDSS, WB; FORTIFICATION; CSOS/ NGOS; MCDSS, USAID, WHO, MLG; MoA; MoH; MCTI; MoE; MGEE
Pathway 3≈: Boosting nature positive food production	SDG 6: Clean Water and Sanitation SDG 7: Affordable and clean Energy; SDG 13: Climate Action SDG 9: Industry, Innovation and Infrastructure	MFNP; MCTI; MSME; PRIVATE SECTOR; WFP; FAO; RESEARCH AND ACADEMIA; World Bank; IAPRI; Musika; FAO; WFP; WB, GIZ; ZNFU; WFP; NFNC; ZCF; CSOs; MGEE; ZCF; SMART-ZAMBIA; WorldFish; Centre for Agriculture and Bioscience International (CABI); CSOs; OVP MGE; OVP; IFAD; MIH; COMACO, USAID; ZNFU; MLGRD; CDC; HEA; ; MSME; MFL; UNICEF; SAVE THE CHILDREN; ZDA; ZCCI; MEDIA; CSOs, NGOs; WWF; ZNFU; GiZ; IFAD; ZCF; MHAIS; Min Home Affairs and

		Internal Security, MoT, MOH, MSME, ZDA, MOFNP, Aquaculture Development Association of Zambia (ADAZ); ACTION AID.
Pathway 4≈: Advancing equitable livelihoods of people involved in the food system.	SDG 1: No Poverty SDG 4: Quality Education SDG 5: Gender Equality SDG 8: Decent Work and Economic Growth, SDG 10: Reduced Inequality SDG 16: Peace and Justice Strong Institutions	MCDSS; MLG; MEDIA; ZLA; CSOs; MFNP; FAO; MOE; GIZ; MCD; WB; WFP; MICROFIN INST; CSOs; MLGRD.
Pathway 5≈: Building resilience to vulnerabilities, shocks and stresses	SDG 2: Zero Hunger SDG 9: Industry, Innovation and Infrastructure SDG 11: Sustainable Cities and Communities SDG 13: Climate Action SDG 17: Partnerships to Achieve the Goals	FAO, SADC GENETIC SEED BANK, WorldFish, ACADEMIA; RESEARCH INSTITUTIONS; CSOs, NGOs, IFAD, ZNFU; ZNFU, OVP, MGE; INSURANCE COMPANIES, WFP, FINANCIAL INST; INTERNATION RED-LOCUST CONTROL ORG FOR CENTRAL AND SOUTHERN AFRICA, OVP; WB, WFP MCDSS, MICROFIN INST; ZNFU, IFAD, MCDSS; MOA, MFL; UNICEF; MCDSS; FRA

IMPLEMENTATION PLAN: PATHWAYS TOWARDS A SUSTAINABLE, RESILIENT AND EQUITABLE FOOD SYSTEM FOR ZAMBIA IN THE PERIOD 2022-2030

PATHWAY 1: ENSURING ACCESS TO SAFE AND NUTRITIOUS FOODS FOR ALL

ACTION	TIMELINES		LEAD INSTITUTION	KEY STAKEHOLDERS
	2022-2024	2022-2030		
1. Invest and promote agricultural and livestock diversification in line with the Zambia Food-Based Dietary Guidelines' recommended six food groups and crop and climate resilient livestock production.	X		MoA &MFL	FAO, NFNC, GIZ, IFAD, World Bank, MoFNP,
2. Accelerate the implementation of the National Food and Nutrition Act of 2020; to facilitate effective coordination and collaboration among stakeholders, as well as the scaling up of nutrition-specific activities	X		OVP&NFNC	Nutrition Line Ministries and Nutrition CPs

<p>3. Invest in nutrition education strategies (NES) such as Social Behaviour Change Communication (SBCC) to strengthen communication networks to raise consumer awareness and promote sustainable consumption of safe, healthy, nutritious foods</p>		X	NFNC, MoA & MoH	UNICEF, WFP, FAO, MCDSS, USAID, WHO, MLG
<p>4. Raise public awareness and enforcement of food safety laws that support the promotion of food safety, including Food Safety Act No 7 of 2019, Fisheries Act No 22 of 2011, Animal Health Act No 27 of 2010, further provide suitable platforms to enhance awareness</p>		X	MoH, MFL	NFNC, GIZ,WHO,FAO, CCPC, UNICEF, MoA
<p>5. Support small-scale community agro-processing and value addition using simple technologies to boost rural income and enable the purchase of a variety healthy diets from local marketplaces.</p>		X	MSME	MCTI, ZNFU, MoA, FAO,

6. Support Mandatory large scale Fortification of complementary foods for children aged 6 to 23 months and salt and sugar.		X	MoH, MCTI	NFNC, UNICEF, Fortification Alliance
7. Provision of low-interest rate in financing agricultural for SME, coupled with incl. financial literacy training for farmers (through extension services), agricultural insurance and other incentives to increase capital diversify production and stimulate smallholder farmers		X	MoA & MFL	GIZ, WFP, USAID, MFNP, MCDSS, Micro financial Institutions
8. Provide an enabling environment for lending institutions to provide lowinterest financial services to increase access to finance for smallholder and mediumscales farmers to stimulate agricultural diversification		X	MSE, MoFNP	BAZ, MCTI, Micro financial institutions, ZDA

9. Engage and support publicprivate partnerships investment in agro-processing and value addition for perishable foods across all agro-ecological zones (e.g. innovative cold chain technologies and processing equipment).		X	MoA, MCTI, MFL,	IDC, Private Sector, MSE, ZCF, Research Institutions & Academia, ZNFU
10. Increase funding for irrigation technologies, dam construction, and low-cost water harvesting infrastructure.		X	MoFNP	MoA, WB, IFAD, MWSEP
11. Strengthen extension workers' capacity (specific skills and logistical support) to provide more effective professional service delivery in Agriculture, Livestock and aquaculture practices. Revision of curriculum		X	MoA& MFL	FAO, Academia and Training Institutions, GIZ, WFP
12. Create enabling environment for increased private sector participation in developing livestock and aquaculture vaccines, drugs, and other bio-security technologies.	X	X	MFL	Ministry of Tech and Science, MoA, FAO, WorldFish, ZABS, Academia, Research Institutions

PATHWAY 2: SHIFTING TO HEALTHY AND SUSTAINABLE CONSUMPTION PATTERNS

ACTION	TIMELINES		RESPONSIBLE INSTITUTION	KEY STAKEHOLDERS
	2022-2024	2022-2030		
1. Operationalise the Food-Based Dietary Guidelines (FBDG), and use SBCC to promote the consumption of six food groups of nutritious foods that are locally available.	X		MoA, NFNC & FAO	MEDIA, UNICEF, GIZ, WFP, USAID, ACADEMIA AND RESEARCH, LINE MINISTRIES
2. Agro-product development experts advise the government, private sector, and farmers on productspecific value-added innovations to boost local and regional agroexport-oriented trade.	X	X	MOA, MFL	MST, NISIR, RESEARCH INSTITUTIONS, NTBC, ACADEMIA, PRIVATE CONSULTING FIRMS, ZAM
3. Raise consumer awareness and promote sustainable expenditure on the consumption of safe, healthy, nutritious foods through intensive SBCC in different population settings (rural/urban).		X	NFNC, MoA & MoH	UNICEF, WFP, FAO, MCDSS, USAID, WHO, MLG
4. Support consumer-friendly frontof-package labelling for healthier food options, such as the Good Food Logo	X		MCTI	WFP, NFNC, UNICEF, MOA, ZABS, TRADERS, CCPC, MFNP, MANUFACTURERS, FOOD PROCESSORS, WHOLESALERS

5.	Support optimal health and nutrition by regulating advertising and marketing unhealthy food products or encouraging better food choices via a combination of taxes and subsidies.		X	MoH& MLG	WFP, NFNC, ZABS, CCPC, MISA ZAMBIA
6.	Enhance promotion of the consumption of fortified/ biofortified foods among (orange-fleshed sweet potatoes, Iron-rich beans and orange maize) the general population.		X	MoH, MoA	FORTIFICATION ALLIANCE, GIZ, RESEARCH INSTITUTIONS AND ACADEMIA
7.	Support improvement of quality of food consumed at school (including school meals) and expanding the home-grown school meal programme.		X	MoA, MoE	NFNC, UNICEF, MLGRD, ZABS, WFP, WHO, FAO
8.	Improve access to information for nutritious and healthy diets.		X	MoA and MoH	NFNC,WHO,MEDIA,GIZ,UNICEF,FAO,MOE, CSOS/ NGOS
9.	Support improvement of quality of food consumed at school (including school meals) and expanding the home-grown school meal programme		X	MOE	WFP, MOH, MOA, MLGRD, NFNC, CSOS/NGOS

10. Enhance dietetic services in primary care across the country. This includes strengthening Nutrition - Dietetics tertiary education so practitioners can work in all healthcare settings.		X	MoH, MoE	UNICEF, RESEARCH AND ACADEMIA
11. Support subsidies and incentives that promote affordability of nutritious foods among low-income households with young children.		X	MoFNP, MoH	MCDSS, UNICEF, MOA, WFP, WB
12. Regulation of unhealthy food and beverage marketing to children, school-age children, and adolescents		X	MoH, MoE	WFP, NFNC, MLGRD, PTCS
13. Create incentives to promote the production, distribution and consumption of indigenous/ traditional foods and beverages.		X	MoA, MGEE	MSME, FAO, MFNP, MCTI, NFNC,
14. Upscale SBCC to popularize the consumption of indigenous/ traditional foods		X	NFNC	GIZ, UNICEF, WFP, MEDIA, MOE, CSOS/ NGOS
15. Enforce existing laws on food labelling and health claims		X	MoH, ZABS	MGLG, WFP,

PATHWAY 3: BOOSTING NATURE-POSITIVE FOOD PRODUCTION

ACTION	TIMELINES		RESPONSIBLE INSTITUTION	KEY STAKEHOLDERS
	2022-2024	2022-2030		
1. Promote climate-smart agriculture (CSA), such as conservation agriculture and integrated agricultural farming systems (IAFS), as well as organic farming and other agro-ecological farming practices.		X	MOA, MFL	FAO, GIZ, MGEE, WWF, WorldFish
2. Development of post-harvest technology storage infrastructure, i.e. Cold chain storage systems; road network from production areas to market/storage facilities, food processing facilities.	X	X	MOA, MFL	MOFNP, MCTI, MSME, MINISTRY OF INFRASTRUCTURE, HOUSING AND URBAN DEVELOPMENT, MLGRD, ACADEMIA, AND RESEARCH INSTITUTIONS
3. Promote the use of efficient agroforestry and aquaculture techniques, as well as sound agricultural practices such as sustainable soil management, crop rotation, integrated fish farming and diversification among small-scale farmers.		X	MOA, MFL	FAO, GIZ, MGE, COMACO, USAID, WB, ZNFU, Research Institutions and Academia

4. Promote crop and climate-resilient livestock and aquaculture production for climate-vulnerable agroecological zones.		X	MOA, MFL	FAO, GIZ, MGE, COMACO, USAID, WB, ZNFU, Research Institutions and Academia
5. Incentivize smallholder farmers and small-scale local businesses who adopt and integrate CSA and naturefriendly agricultural production practices.		X	MOA, MFL	FAO, GIZ, MGE, COMACO, USAID, WB, ZNFU, MFNP
6. Provide an effective Early Warning System (EWS) to promote climateresilient cropping, livestock and fisheries system (particularly in Regions I and II with minimal rains below 800mm per year).		X	MOA, MFL	MGE, OVP, GIZ, ZNFU, WFP, FAO, ACADEMIA, USAID, RESEARCH INSTITUTIONS
7. Promote indigenous species of crops, livestock and fish to conserve biodiversity.		X	MOA, MFL	FAO, WorldFish, Centre for Agriculture and Bioscience International (CABI), RESEARCH Institutions AND ACADEMIA, ZNFU, NFNC, CSOs, MEDIA, OVP
8. Finance and intensify agricultural research on positive nature production (participatory breeding, seed systems).		X	MOA, MFL	MFNP, RESEARCH AND ACADEMIA,
9. Invest in Research and Development to improve		X	MOA, MFL	PRIVATE SECTOR, WFP, FAO, RESEARCH AND ACADEMIA,

innovations in adopting climate-adapted and nutritious foods.				
10. Promote precision farming among commercial and smallholder farmers		X	MOA, MFL	FAO, IFAD, PRIVATE SECTOR,
11. Introduce formal financial incentive mechanism for smallholder farmers and local small-scale enterprises, practising nature-positive production complimented by financial literacy		X	MOA, MFL	MFNP, FAO, MSME, Musika
12. Create financial models that address the challenges of lack of collateral among the smallholders, such as village banking and rural savings groups. These will ensure financial inclusion.		X	MOA, MFL	MFNP, FAO, MSME, WB, IAPRI, Musika, RESEARCH Institutions AND ACADEMIA
13. Redesign the Farmer Input Support Programme and create a policy to subsidize inputs for positive nature production.	X		MOA, MFL	MFNP, RESEARCH Institutions AND ACADEMIA, ZNFU, FAO, WFP, NFNC, ZCF, CSOs, PRIVATE SECTOR
14. Connect smallholder farmers to green funding options, including carbon credits, and maximise the use of lead farmers and other community champions to promote naturefriendly production.	X		MOA, MFL	MFNP, FAO, MSME, WFP, WB, IAPRI, Musika, MGEE, RESEARCH Institutions AND ACADEMIA
15. Use lead farmers and other community champions to promote nature-positive production and consumption	X		MOA, MFL	FAO, WFP, ZNFU, GIZ, ZCF

16. Upscale E-Extension through mass and social media platforms	X		MOA, MFL	SMART-ZAMBIA, FAO, WFP, ZNFU, GIZ, ZCF , MEDIA, Academia
17. Capacity building of extension staff and farmers on nature-positive production and natural resource management complemented by re-orienting in-service staff	X	X	MOA, MFL	FAO, MFNP, WFP, WB, GIZ, ACADEMIA
18. Employ more extension workers to meet the recommended extension worker to farmer ratio (1 to 400)	X		MOA, MFL	WB, MFNP, CABINET OFFICE
19. Increase budgetary allocation and releases for extension services.	X	X	MOA, MFL	MFNP, WB
20. Review and strengthen the linkage between environmental studies and agricultural production, processing, distribution and utilization in the school curricula.	X		MOE, MOA	MFL, ACADEMIA, ZAM, CDC, PRIVATE SECTOR, HEA, MGEE, MTS , MSME
21. Introduce agricultural studies in the Early Childhood Curriculum.		X	MOE, MOA	MFL, UNICEF, SAVE THE CHILDREN AND OTHER NGOs
22. Engage small, medium and largescale farmers and the private sector in fodder production and create demand for fodder among small livestock producers	X	X	MFL, MOA	MFNP, MCTI, ZNFU, ZDA, FAO

23. Develop financial and non-financial incentive mechanisms for commercial, smallholder farmers and local small-scale enterprises practising nature-positive production complimented by financial literacy	X	X	MFL, MOA	MFNP, MSME FINANCIAL INSTITUTION, ZCCI,
24. Raise awareness and knowledge of the importance and benefits of nature's positive production	X	X	MFL, MOA	MEDIA, CSOs, NGOs, MGE, WWF, FAO, ZNFU, GiZ, MoE
25. Provide sustainable livelihood alternatives to co-management schemes in capture fisheries areas based on regional potentials, e.g. wetland rice, aquaculture, poultry, Honey production, etc.	X	X	MFL, MOA	MSME, WorldFish, FAO, GiZ, IFAD, ZCF, MGEE
26. Upscale monitoring and surveillance through capacity building and provision of equipment	X		MFL	WorldFish, FAO, GiZ, IFAD, MHAIS, MoT, WWF, Africa Parks, Conservancy groups and NGOs
27. Regulate the production, importation and use of fishing gear.	X	X	MFL	WorldFish, FAO, GiZ, IFAD, Min Home Affairs and Internal Security, MoT, MOH, MSME, ZDA, MOFNP, Aquaculture Development Association of Zambia (ADAZ)
28. Strengthen co-management structures in capture fishery areas	X	X	MFL	MLG, WorldFish, FAO, GiZ, IFAD, ACTION AID and OTHER CSOs/ NGOs
29. Gazetting fish breeding areas on all significant capture fisheries	X		MFL	MLG, WorldFish, FAO, GiZ, IFAD, Ministry of Lands, CSOs

30. Increase awareness of sustainable good aquaculture practices along the fisheries value-chain (from capture to consumption).	X	X	MFL	MEDIA, MLG, FAO, GIZ, Media
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PATHWAY 4: ADVANCING EQUITABLE LIVELIHOODS OF PEOPLE INVOLVED IN THE FOOD SYSTEM

ACTION	TIMELINES		RESPONSIBLE INSTITUTION	STAKEHOLDERS
	2022-2024	2022-2030		
1. Raise awareness among traditional leaders and engage them on discussions about fair land distribution for women, youth, and other vulnerable groups in line with the National Land Policy 2021, which calls for additional land to be allocated to women, youth, and other vulnerable populations.	X		MOL	MCDSS, MLG, MEDIA, ZLA and other CSOs
2. Promote financial literacy initiatives and alternative livelihoods for farmers and small businesses according to regional potential and in line with National Financial Inclusion Strategy as well as the National Strategy on Financial Education for Zambia 2019-2024		X	MFL, MOA	MFNP, WFP, FAO, MOE, GIZ,

3. Create an enabling environment to strengthen low-interest (digital) financial lending institutions as alternatives for vulnerable low-income people, particularly those who are vulnerable (young people, women, and people with disabilities).		X	MCDSS	MCD, WB, WFP, MICROFIN INST., CSOs
4. Review the effectiveness of existing government' policies and criteria for recipients of social cash transfers and other support systems, as well as strengthen monitoring system.	X		MOL	MCDSS, MLG, MEDIA, ZLA and other CSOs

PATHWAY 5: BUILDING RESILIENCE TO VULNERABILITIES, SHOCKS AND STRESSES

ACTION	TIMELINES		RESPONSIBLE INSTITUTION	STAKEHOLDERS
	2022-2024	2022-2030		
Promote the diversification of crop species and genetic resources at the landscape level as a way to improve resilient livelihoods of small-scale farmers while reconsidering “traditional crops” along the whole commodity chain (from production to consumption).		X	MFL, MOA	FAO, SADC GENETIC SEED BANK, WorldFish, ACADEMIA AND RESEARCH INSTITUTIONS
Provide farmers with agriculturally targeted technical assistance in order to improve their production strategies. E.g. climate-resilient crops and livestock production).	X	X	MOA, MFL	FAO, GIZ, CSOs, NGOs, IFAD, ZNFU

Enhance the Early Warning System capabilities of institutions and promote climate-resilient cropping system in Regions I and II with minimal rains below 800mm per year (grain sorghum, millet, cassava, livestock, forestry and fisheries, and products	X		MOA, MFL	FAO, GIZ, CSOs, NGOs, IFAD, ZNFU, OVP, MGE, ACADEMIA AND RESEARCH INST.,
Upscale weather-based index insurance that provides relief in prolonged dry spells/droughts and floods, particularly for smallholder farmers.		X	MOA, MFL	INSURANCE COMPANIES, WFP, FINANCIAL INST., FAO, GIZ, IFAD
Increase investment in coordinated surveillance for pest-control and management activities.		X	MOA, MFL	WFP, FINANCIAL INST., FAO, GIZ, IFAD, INTERNATION REDLOCUST CONTROL ORG FOR CENTRAL AND SOUTHERN AFRICA, OVP
Upscale the proportion of men and women engaged in agriculture with access to macro and microcredit financial services		X	MOA, MFL	WB, WFP MCDSS, , MICROFIN INST., CSOs

Promote climate resilient crops (sorghum, millets, cassava and legumes such as cowpeas, bambara nuts) to strengthen the resilience of the food system against climate-change; natural disasters and unforeseen crises		X	MOA, MFL	FAO, CSOs, GIZ, ZNFU, IFAD, MCDSS
Strengthen social protection policies and strategies to enhance adaptabilities among vulnerable populations		X	MCDSS	MOA, MFL, WFP, OVP, UNICEF, CSOs and NGOs
Creation of local food banks, especially in disaster-prone areas, to help people cope with shocks and unforeseeable disasters		X	MOA, MFL	MCDSS, FAO, MoIHUD, WFP, UNICEF, GIZ, CSO, FRA and NGOs

