

ZERO HUNGER



	REFERENCE	VERKLARING
Sociology	International	wereld of wereld
"	Neighbourhood Distance	"
"	Exterior	"
"	Atmosphere	"
"	Disputed Area	omstreden gebied
"	Alarm Function	"
"	Area	"
History	International	wereld
Peace	Minor	"
"	Disputed	"
"	Other	"
Peace		"

Institutions that contributed to the development of the **Namibia Zero Hunger Road Map**

Ministry of Economic Planning, Office of the Prime Minister (OPM), National Planning Commission (NPC), Ministry of Health and Social Services (MOHSS), Ministry of Agriculture, Water and Forestry (MAWF), Ministry of Education Arts and Culture (MOEAC), Ministry of Urban and Rural Development (MURD), Ministry of Finance (MOF), Ministry of Gender Equality and Child Welfare (MGEWC), Ministry of Land Reform (MLR), Ministry of Industrialisation Trade and SME Development (MITSD), World Food Programme (WFP), UN Development Assistance Programme (UNDP), World Health Organisation (WHO), University of Namibia (UNAM), Namibia University of Science and Technology (NUST), //Karas Regional Council, Khomas Regional Council, Ohangwena Regional Council, Kavango West Regional Council, Omusati Regional Council, Kunene Regional Council, Otjozondjupa Regional Council, Kavango East Regional Council, Oshikoto Regional Council, Omaheke Regional Council, Zambezi Regional Council, Hardap Regional Council, AgribusDev, AgriBank, NamWater, Namibia Red Cross Society (NRCS), Namibia Statistics Agency (NSA), Agro Marketing and Trade Agency (AMTA), and SME Bank

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Introduction

In September 2015, the Government of Namibia launched the Zero Hunger Strategic Review to:

1. Establish a comprehensive analysis of the food security and nutrition situation within the pillars of the Zero Hunger Challenge, and targets of Sustainable Development Goal Two (SDG2);
2. Determine the progress made by policies and programmes aimed at improving food security and nutrition, and identify gaps in the response;
3. Identify and prioritize actions that will be required to fill response gaps, and accelerate progress toward Zero Hunger.

The Review was coordinated by the National Planning Commission (NPC) in collaboration with the Office of the Prime Minister. Technical and financial assistance for the Review was provided by the World Food Programme.

The Zero Hunger Strategic Review which was undertaken through a multi-stakeholder consultative process, and culminated in the development of the Zero Hunger Road Map, which defines the vision and the strategic actions needed to work toward the vision of ***a Namibia without Hunger*** during next five years.

This Road Map puts forward a common vision around a set of needs that must be met in order to achieve Zero Hunger, and is aligned to the goals of the Harambee Prosperity Plan and the Sustainable Development Agenda – particularly SDG2: “End hunger, achieve food security and improved nutrition, and promote sustainable agriculture”. It delineates a clear set of objectives and milestones for Namibia to track and accelerate progress toward Zero Hunger. The Road Map assigns responsibilities to various line ministries and other stakeholders to ensure a multi-sectoral response, as well as inter-connections among different sectors.

The Zero Hunger Road Map presents issues and interdependencies within the following five Zero Hunger Pillars:

- 100 percent access to adequate food all year around;
- Zero stunted children less than 2 years of age;
- All food systems are sustainable;
- 100 percent increase in smallholder productivity and income;
- Zero loss or wastage of food.

The updated Food and Nutrition Security Policy will provide the framework for the implementation of this Zero Hunger Road Map, and will define the coordination mechanisms that will be in place to ensure actions and targets set within this Road Map are implemented by the relevant Government institutions and partners.

VISION: A NAMIBIA WITHOUT HUNGER

Goal: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

Pillar 1: 100 Percent Access to Adequate Food All Year Around

Where are we today?	Milestones for Next Five Years	Actions	Timeframe (Medium/Long-term)	Lead Institution (Key Partners)
Unemployment/Low Incomes: <ul style="list-style-type: none"> ➤ High unemployment, especially among the youth; high prevalence of under-employment; existence of a sizeable, low-productivity informal economy; ➤ Low incomes resulting in restricted access to food; strong linkage between unemployment, poverty and food insecurity; inadequate education and skills training facilities; gender discrimination in the job market; 	<ul style="list-style-type: none"> ✓ Increased income of the extreme poor to afford adequate food ✓ Increased agricultural productivity of the extreme poor 	<ul style="list-style-type: none"> → Create employment schemes; → Provide access to means of production; 	Medium to long-term	Ministries of Labour, Industrial Relations and Employment Creation (MLIREC) Partners Ministry of Industrialisation, Trade and SME Development (MITSD); Ministry of Agriculture, Water and Forestry (MAWF); Regional Councils (RCS); Ministry of Poverty Eradication and Social Welfare (MPESW); and Food and Agriculture Organisation (FAO)
Social Protection: <ul style="list-style-type: none"> ➤ Roughly 10.2% of households have a social pension as the main source of income; 2.12% have other cash transfers as main income sources; ➤ Some deserving cases fail to access cash transfers because of lack of official documents, long distances to collection points, bureaucracy, lack of a registration programme around the country, and expensive administrative costs which result in reduced access points; 	<ul style="list-style-type: none"> ✓ Increased coverage of the social safety nets to 100%. 	<ul style="list-style-type: none"> → Re-enforce existing laws and regulations on social protection; → Centralize the registration system for social safety net beneficiaries; → Ensure all eligible beneficiaries have national documentation; 	Medium to long-term	MPESW Partners Ministry Home Affairs and Immigration (MHA); Min of Education, Arts and Culture (MEAC); RCs; World Food Programme (WFP); and Social Security Commission

<p>Food Assistance:</p> <ul style="list-style-type: none"> ➤ In some regions, large sections of the population are dependent on food assistance; the country has a structural food deficit, warranting frequent interventions to avert starvation; ➤ But targeting of food assistance is problematic (inclusion and exclusion errors); food assistance could cause dependency if not well-managed; ➤ Addressing the root causes of hunger demands significant resources; high levels of poverty and unemployment result in some households lacking access to food; lack of skills means the unemployed fail to secure jobs with sufficient income 	<p>✓ Coordinated food assistance programmes & appropriate targeting mechanisms</p>	<ul style="list-style-type: none"> → Harmonize the overall activities of the food distribution systems → Link the food assistance programs to the active labour market policies → Generate and manage household food security data 	<p>Medium to long-term</p>	<p>Office of the Prime Minister (OPM)</p> <p>Partners MPESW MAWF</p> <p>Council of Churches Namibia (CCN); WFP; Namibia Red Cross Society (NRCS)</p>
<p>Food Supply Systems:</p> <ul style="list-style-type: none"> ➤ Weaknesses in drought support for livestock farmers, e.g. shortage of quarantine facilities in the Zambezi region; ➤ Over-supply of animals as farmers destock in response to drought; ➤ Production of staple foods declining, even though the Government guarantees prices and purchase of output, and offers inputs but yields remain low due to the drought; ➤ Sources of income not diverse enough for some households and regions; ➤ Limited availability of irrigation facilities, especially for smallholder farmers; 	<p>✓ A responsive food supply system maintained</p>	<ul style="list-style-type: none"> → Increase quarantine facilities → Continue to increase storage capacity of the food reserve facilities → Intensify the implementation of the livestock marketing incentives → Intensify the implementation of aquaculture programmes 	<p>Medium to long-term</p>	<p>MAWF</p> <p>Partners Ministry of Fisheries and Marine Resources (MFMR); Regional Councils; FAO</p>

Price Volatility: <ul style="list-style-type: none"> ➤ Country is significantly reliant on South Africa for manufactured goods, including grains, so what happens in SA affects the local market; ➤ Integration into the global economy increases vulnerability to international price movements; ➤ Weaknesses in the management of strategic grain reserves, e.g. sometimes the food is wasted; ➤ Inadequate infrastructure in some places hinders the movement of food; 	✓ The national competitive advantage enhanced to improve Namibia's international trade patterns	→ Accelerate the implementation of the national industrialization policy and Growth at Home strategy	Medium to long-term	Ministry of Industrialization, Trade and SME development Partners Namibia Trade Forum (NTF) NSA WFP MAWF
Coordination: <ul style="list-style-type: none"> ➤ There is inadequate coordination of social protection schemes to ensure synergies and directing programmes towards common objectives 	✓ Strengthened coordination of social protection efforts	→ Develop action plan with clear roles and responsibilities	Medium to long-term	MPESW Partners MHAI , MLIREC, Ministry of Finance, Min of Gender Equality and Child Welfare (MGECW), MOEAC, CCN, WFP, NRCS

Pillar 2: Zero Stunted Children Less than 2 years of Age				
Where are we today?	Objectives/ Milestones for Next Five Years	Actions	Timeframe (Medium/ Long-term)	Lead Institution (Key Partners)
Infant and Young Child Feeding: <ul style="list-style-type: none"> ➤ Initiated in 2000 and targeting all ages; ➤ Policy and guidelines on IYCF have been developed focusing on benefits of exclusive breastfeeding, management of breast problems, introduction of complementary foods, and young child nutrition needs; ➤ These programmes have resulted in marked progress in exclusive breastfeeding. However, more still needs to be done to encourage exclusive breastfeeding; 	→ Increased awareness of the benefits of optimal breast feeding	<ul style="list-style-type: none"> → Strengthen anti-natal education on breast feeding during ante-natal care. → Conduct National awareness campaigns on breast feeding using and building on existing structures and programmes, using evidence from an available survey on infant and young child feeding. 	Medium-Long-term	Lead: Ministry of Health and Social Services (MOHSS) Partners: United Nations (UN); Civil Society
<ul style="list-style-type: none"> ➤ There is insufficient guidance on complementary feeding – children are fed watery foods (need to have both solid and watery foods) ➤ The Code of Marketing of Breast Milk Substitutes has been drafted and included in 2015 Public and Environment Health Bill. However, the Code has not yet been enacted and there is limited dissemination of its use; ➤ Training and advocacy campaigns have been ongoing but more still needs to be done in improving maternity leave conditions, awareness and education; 	<ul style="list-style-type: none"> → Quality of locally available foods explored for their nutrient content → Enactment of the code of marketing of breast milk fast-tracked → Improved maternity leave conditions 	<ul style="list-style-type: none"> → Conduct trials of feeding practices based on traditional eating habits based on the IYCF study results; → Conduct research to assess the nutritional content of traditional food; → Intensify advocacy to fast track the enactment of the code of Marketing of Breast Milk Substitutes; → Review and amend maternity leave act; 	Medium Medium Medium to Long-term Long-term	Lead: MOHSS Partners: UN, Civil Society Lead: MOHSS, MAWF with UN support Lead: MOHSS, Ministry of Justice (MoJ), MGECW, Ministry of Information and Communication Technology (MICT), UN support Lead: MLIREC

financial and technological issues to be addressed before fortification of mahangu can begin;				Support: NAB, Ministry of Agriculture, UN Support
➤ There is no fortification legislation;				
Crop Improvement and Crop Diversification:				
➤ The MAWF launched a national crop improvement program soon after independence with pearl millet (mahangu) and sorghum as the major crops, and the programme has been progressing well. Currently, research is focused on drought resistant varieties (groundnut, millet, cowpeas) and these varieties are due to be released in 1-2 yrs. There is also research on cassava production (the leaves are very nutritious) and sweet potatoes (yellow); this research is taking place in the Okavango region.	→ Adoption and consumption of new crop varieties scaled up	✓ Develop national appropriate bio-fortified crop varieties and scale up their adoption and consumption	Medium to Long-term	Lead: MAWF
➤ Challenges faced across these initiatives include: <ul style="list-style-type: none"> • Limited budget allocated to research; • Staff shortages; • Slow improvements in infrastructure such as drip irrigation; • Impacts of drought on research initiatives; • Integration of nutrition not currently well articulated and translated into action; 		✓ Integrate nutrition into crop improvement initiatives ✓ Mobilise additional funds for research ✓ Source short and long-term capacity building for staff ✓ Strengthen irrigation infrastructure, systems and technologies	Medium to Long-term	Partners: MOHSS, Academia, Private Sector, UN
Crop and Horticulture Production Programme:				
➤ "Integrated Initiative in Support of Urban and Peri-Urban Horticulture Development" initiative is targeted at urban dwellers, landless, marginalised farmers and	→ Increased awareness and behaviour change toward consumption of	✓ Strengthen community and backyard garden interventions in order to increase dietary diversity, particularly	Medium to Long-term	Lead: MAWF Partners: MOHSS, MGECW, Civil Society, local government and

<p>disadvantaged groups including the under- and unemployed;</p> <p>➤ Most horticulture initiatives are taking place in research stations and adoption rates are still very low because people are attached to their traditional diets;</p>	diversified foods	<p>in areas with restricted market access to nutritional food</p> <p>✓ Consolidate, integrate and coordinate ongoing efforts of planning, implementation and monitoring frameworks</p>		UN
<p>Nutrition Assessment Counselling & Support (NACS) for PLHIV:</p> <p>➤ There are current gaps in terms of:</p> <ul style="list-style-type: none"> ✚ Incomplete, inaccurate and late reporting; ✚ Information that is not integrated in Health Information System; ✚ Stockout of RUTF and RUSF due to being imported from France and South Africa; ✚ Staff shortage; ✚ The need for greater involvement of all relevant line ministries – particularly decision makers; 	→ Improved nutritional status of vulnerable children under the age of 2, particularly those who are HIV infected and affected	<p>✓ Strengthen programmes focusing on the infant and young children under 2 years of age</p> <p>✓ Strengthen the supply chain of RUTF and RUSF to ensure its lack of interruption</p>	Medium-term	<p>Lead: MOHSS</p> <p>Partners: Private sector; Civil Society; UN</p>
<p>Immunization of Children 0-2 Years of Age:</p> <p>➤ Although immunization coverage has improved, not all children are immunized. The level is dropping particularly in urban areas. In 2013, 69.5% of children had a vaccination card;</p>	→ Increased immunization coverage of children under 2 years of age	<p>✓ Intensify current immunization efforts through supplementary activities;</p> <p>✓ Strengthen outreach to communities through health workers;</p> <p>✓ Increase demand and immunisation through awareness creation;</p>		<p>Lead: MOHSS</p> <p>Partners: MICT; Civil Society Organisations; UN</p>

Health Extension Workers' Programme: <ul style="list-style-type: none"> ➤ HEW travel long distances, and lack transport. The semi-nomadic nature of communities affects follow-ups and referrals from reaching health facilities 	→ Increased community awareness and outreach	<ul style="list-style-type: none"> ✓ Provide logistical support to HEWs; ✓ Strengthen collaboration with other community volunteers; 	Medium term	Lead: MOHSS Partners: UN, Development partners
Namibia School Feeding Programme: <ul style="list-style-type: none"> ➤ There is a lack of a school feeding policy in Namibia, although stakeholder engagement is working toward its creation; ➤ Lack of a full-scale impact evaluation of the programme that includes an understanding of the nutritional outcomes; ➤ Regional and community (especially cooks) capacity in SFP is currently limited; ➤ Lack of nutrition expertise in general; ➤ Weak linkages among sectors (e.g. water and sanitation, agriculture, health and others) for improving nutritional outcomes; ➤ Weak follow up of monitoring findings and recommendations; ➤ Slow application of lessons learned from knowledge sharing platforms; 	→ A school feeding policy framework developed to guide school feeding	<ul style="list-style-type: none"> ✓ Develop the School Feeding Policy ✓ Accelerate progress toward linking school feeding to smallholder farmers ✓ Diversify school feeding meals with protein rich commodities to provide a balanced diet ✓ Accelerate/scale up the establishment of early childhood development centres (ECDs) ✓ Review decentralization structures, and how they can be empowered in order to facilitate integration 	Medium to long-term	Lead: MOEAC Partners: WFP; UNICEF; MAWF; FAO; Private Sector; Regional Councils; Civil Society
Water and Sanitation: <ul style="list-style-type: none"> ➤ A good policy framework and strategy for improving sanitation is in place. However: <ul style="list-style-type: none"> ✚ Construction of sanitation facilities has been slow due to limited funding; ✚ Weak coordination in implementation, as mandate falls across various ministries; ✚ Key ministries do not attend meetings called by DWSSC; ✚ Demand for sanitation is low and this is associated with community fatigue; ✚ No clear link to nutritional outcomes; 	→ Strengthened coordination of stakeholders to implement the policy framework and strategy for improving water and sanitation	<ul style="list-style-type: none"> ✓ Establish clear coordination mechanisms among stakeholders ✓ Develop a plan and implement the communication strategy on open defecation, with 	Medium term	Lead: MAWF Partners: Ministry of Urban and Rural Dev (MRUD), MOHSS, NPC Lead: MAWF

		involvement of all stakeholders		Partners: Civil Society, UN, Private Sector
Food Security Monitoring Systems <ul style="list-style-type: none"> ➤ Namibia Food and Nutrition Security Monitoring (FNSM) plan developed by OPM with technical assistance from WFP; ➤ Capacity development of NAMVAC undertaken. There is integration of nutrition information in the food security monitoring system, assessment tools, and analysis; ➤ However, <ul style="list-style-type: none"> ✚ there is need for scaling up household level food and nutrition security monitoring activities ✚ there is a lack of ownership of FSMS by some regions 	→ A functional Food Security Monitoring System	<ul style="list-style-type: none"> ✓ Strengthen nutrition surveillance systems within Ministry of Health to feed into the Food and Nutrition Security Monitoring System; ✓ Develop a food and nutrition security baseline; ✓ Streamline FSMS activities into regional programmes; ✓ Commission a food consumption pattern study to understand food consumption patterns and drivers of food choices in the country; ✓ Roll-out of the FSMS to all regions; ✓ Revitalize NAMVAC and strengthen coordination; 	Medium term	Lead: OPM/NPC Partners: MOHSS, MAWF, National Statistics Agency, WFP, UNICEF, FAO, WHO

Pillar 3: All Food Systems are Sustainable

Where are we now?	Objectives/ Milestones for Next Five Years	Actions	Timeframe Medium/ Long-term	Lead Institution (Key Partners)
Sustainable Food Systems <ul style="list-style-type: none"> ➤ Namibia is most vulnerable to the impacts of climate change through increases in temperature, evaporation, as well as increased variability of rainfall. Climate change impacts affect water availability in particular through an increase in prolonged and more severe droughts, declining soil moisture, and increased evapo-transpiration; ➤ Namibia also experiences frequent veld and forest fires that destroy forests, as well as pasture for livestock; ➤ The establishment of the Disaster Risk Management (DRM) office within OPM provides a national disaster preparedness and response unit to coordinate preparedness and relief operations in the country. The major weakness of the structure is that there is no legal instrument that specifies the chain of command to facilitate DDRM to mobilise the regional authorities and stakeholders during disasters and other significant events. ➤ Most importantly, Namibia has not included DRR in the NDP4. 	<ul style="list-style-type: none"> → Aligned climate change adaptation strategy to ensure all food systems are sustainable; → Climate Change Adaptation and Disaster Risk Reduction national strategies aligned to the Zero Hunger goals → Reduced impact of fires (domestic, industrial, veld, and forest) on forests and rangelands → Enhanced enforcement of the DRM Act → Integrate DRR and SDG2 into national 	<ul style="list-style-type: none"> ✓ Review the existing Climate Change Adaptation (CCA) Strategy and identify the gaps ✓ Develop strategies to address CCA gaps ✓ Create awareness of the CCA strategy ✓ Review and ensure alignment of fire policy and fire brigade act ✓ Create awareness on the impact of fires on pastures for livestock and forest ✓ Undertake a capacity skills assessment ✓ Ministries to advocate and engage NPC and Ministry of Finance for inclusion of CCA strategies in NDP5 and MTEF 	<p>Medium term</p> <p>Medium term</p> <p>Medium term</p>	<p>Lead: OPM, NPC</p> <p>Partners: UN System Ministry of Environment and Tourism</p> <p>Lead: NPC, Min of Finance, All Ministries</p>

	policies and programmes			Partners: UN System
Human Resource Capacity for Coordination and Management of Disaster Risk <ul style="list-style-type: none"> ➤ Insufficient skilled human resource capacity for coordination and operations regarding disaster risk management. As a result, preparedness, response and recovery measures against future disasters are often lacking in quality and effectiveness; 	→ Strengthened and increased capacity within DDRM	<ul style="list-style-type: none"> ✓ Undertake skills assessment/audit ✓ Integrate DRM into existing relevant educational curricula ✓ Design and implement relevant short courses to improve capacity 	Medium to Long-term Medium to Long-term Medium to Long-term	Lead: OPM, NPC Partners: NUST, UNAM, WFP, UNESCO, MOEAC
Sustainable and Resilient Agriculture <ul style="list-style-type: none"> ➤ Smallholder and subsistence farmers, largely in the northern communal areas, struggle with access to inputs – including water and low producer prices; ➤ Low levels of production are due to the limits of the total land area that is able to support economic crop and livestock production; ➤ Low levels of productivity are partly due to Namibian smallholder farmers not experiencing sustained technological progress; ➤ Opportunities exist with new technologies, particularly those that focus on drought resistance, and expansion of areas under irrigation; ➤ The productivity of the livestock sector is constrained by high frequency of droughts, as well as exclusion from lucrative markets due to prevalence of foot and mouth disease; ➤ Poor grazing is a major concern in the northern regions; 	→ Alternative water sources for smallholder farmers explored → Enhanced adoption of livelihoods practices and new technologies that are climate resilient → Developed climate resilient technologies and methodologies → Enhanced collaboration	<ul style="list-style-type: none"> ✓ Enhance education, impart knowledge and skills to smallholders and subsistence farmers; ✓ Harness underground water and harvest flood water; ✓ Improve rotational grazing and animal breeding that is resilient to climate change; ✓ Enforce livestock carrying capacity regulations; ✓ Design and implement research on new technologies and methodologies; 	Medium to Long-term	Lead: OPM, NPC Partners: FAO, Meat Board, AgriBusDev, MAWF, AMTA, MOEAC, Min. of Mines and Energy

➤ There is need to improve rangeland management as a way of ensuring sustainable wealth creation, especially in the Northern Communal Areas;	with regional and international partners	✓ Seek international development partners for collaboration		
Climate Smart Agriculture (CSA) ➤ Many of the MAWF policies and programmes, including the CSA programme, address some issues pertaining to smallholder agriculture systems. However, there is need to increase smallholder farmers' productivity through increased adoption of new technologies, mechanisation, and a more supportive government policy environment. This will allow smallholder farmers to benefit from economies of scale and enable them to utilise previously marginal lands. There is much, however, to build upon.	→ Enhanced climate change adaptation strategies (e.g. introduction of new technologies, crop building, and home grown agriculture).	✓ Intensify research ✓ Educate community through demonstrations, monitor the progress, and ensure sustainability ✓ Replicate best practices	Medium term	Lead: MAWF Partners: UNAM, NUST, Min of Environment and Tourism (MET), FAO, Research Institutions
Early Warning Systems ➤ Several early warnings systems have been established to provide frequent early warning information; however these are not fully effective on the ground. For instance although the National Flood Forecasting System is well established and functional, mechanisms for the transformation of the flood forecasting into early warning information is still inadequate	→ Strengthened early warning systems	✓ Enhance capacity through training; ✓ Improve planning process. ✓ Introduce new technologies; ✓ Enhance research and predication/forecasting capacity; ✓ Invest more in education; ✓ Develop mitigation strategies; ✓ Strengthen coordination institutions; ✓ Develop an information/data management system and a reporting/communication mechanism;	Medium to Long-term	Lead: OPM Partners: WFP, UNESCO, FAO MAWF, Min. of Mines and Energy, Min of Works and Transport, MHAI, NSA

Pillar 4: 100 Percent Increase in Smallholder Productivity and Income

Where are we today?	Objectives/ Milestones for Next Five Years	Actions	Timeframe Medium/ Long-term	Lead Institution (Key Partners)
Green Scheme Policy: <ul style="list-style-type: none"> ➤ Limited capital investment for the irrigation infrastructure and slow pace of irrigation scheme expansion; ➤ Water challenges, as most of the schemes utilize international rivers (Zambezi, Kavango and Orange rivers) whose water has to be utilized within the riparian rules; ➤ AgriBusDev as the implementing arm has no control over the budget as MAWF develops the infrastructure and handover to AgriBusDev with funding from AgriBank; ➤ Government has monopoly in the buying of grains; ➤ High staff turnover and shortage; ➤ High cost of production, as inputs like fertilizers, related chemicals and machinery are imported; ➤ There are high electricity costs, ➤ Limited packing houses, transport and storage for perishable products; 	<ul style="list-style-type: none"> → Conductive Green Schemes lease conditions → Improved use of the Zambezi, Kunene, Kwando and Chobe rivers and the Etaka/ Olushandja dams → Improved use of untapped underground water for irrigation; water harvesting → Completed construction of Neketal dam → Development of infrastructure for schemes expansion of to be the responsibility of AgriBusDev 	<ul style="list-style-type: none"> ✓ Use government resources to leverage private sector investment ✓ Establish Green Schemes along Chobe, Zambezi, Kwando rivers ✓ Fast-track the Green Scheme at Tandjeskopper area ✓ Double the water supply to Etaka and thereby legalise irrigation production and expansion of existing schemes 	Medium term	Lead: MAWF Partners: MLR, MOF, Bankers Association, Namibia National Farmers Union (NNFU) FAO, MAWF, NAMWATER
Communal Dry Land Grain Production: <ul style="list-style-type: none"> ➤ Poor soil nutrition reducing yield of mahangu (Conservation Agriculture is still in its infancy for lessons learned); ➤ Drought is reducing production; 	<ul style="list-style-type: none"> → Enhanced Conservation Agriculture among smallholder farmers 	<ul style="list-style-type: none"> ✓ Train farmers on CA ✓ Disseminate CA results ✓ Conduct monitoring and evaluation of CA 	Medium term	Lead: MAWF Partners: CA Forum, Agribank

<ul style="list-style-type: none"> ➤ Birds destroying mahangu crop; ➤ There are no commercial mahangu products as yet that could stimulate production; ➤ Lack of effective coordination of various stakeholders; ➤ Low levels of fertilizers and technology adoption by farmers; ➤ Land size remains a challenge; ➤ Delays in repairs of government tractors leading to further delays in service provision; ➤ Funding remains a challenge; ➤ Lack of soil science research to inform the right farming practices; ➤ Limited capacity at the research stations; 	<ul style="list-style-type: none"> → Increased peer learning and exchange visits → Strengthened National Mahangu Coordination → Increased CA knowledge among smallholder farmers → Communal farmers included in the resettlement program 	<ul style="list-style-type: none"> ✓ Assign responsibility to people with decision making power ✓ Raise awareness on the use of appropriate technology ✓ Target youth to join resettlement program 		Namibia Agronomic Board (NAB) NPC MLR
<p>Horticulture Production:</p> <ul style="list-style-type: none"> ➤ Limited funding to expand local production; ➤ Low uptake of the orchard project; ➤ Lack of access to water by communities who want to venture into community and backyard vegetables; ➤ Impact of drought on water availability and production; ➤ Cultural practices that deter uptake of consumption of cassava as an alternative vegetable; ➤ Low quantities and qualities of local production as well as unreliable supplies, leading main buyers to rely on imports; 	<ul style="list-style-type: none"> → Increased investment in water harvesting for household horticulture production → Increased MSPI share 	<ul style="list-style-type: none"> ✓ Monitor and evaluate progress of horticulture supporting policies and programs ✓ Train households on rainwater harvesting and horticulture production ✓ Increase activities of AMTA 	Medium term	Lead: MAWF and related institutions

<ul style="list-style-type: none"> ➤ High cost of water discouraging urban and peri-urban horticulture. ➤ Low uptake of research results by farmers; ➤ Lack of funding to support organic farming initiatives; 				
NCA Livestock Improvement and Market access: <ul style="list-style-type: none"> ➤ Low levels of market participation by Northern Communal Areas (NCA) farmers; ➤ Unfavourable livestock prices; ➤ Drought destroying grazing areas resulting in poor livestock quality conditions; ➤ Unsustainable regional markets for NCA livestock products; ➤ Underutilization of abattoirs in the north; ➤ Heavy bush encroachment reducing quality of grazing area; ➤ Limited participation of smallholder farmers in livestock markets; ➤ Animal Health Status controls FMD limiting exports; 	<ul style="list-style-type: none"> → Improved marketing facilities → Livestock FMD red line shifted far North 	<ul style="list-style-type: none"> ✓ Subsidize livestock marketing ✓ Review livestock FMD policies 	Medium term	Lead: MAWF Partners: MEATCO NNFU
Small Stock Marketing: <ul style="list-style-type: none"> ➤ The SSMS failing to create jobs at small stock abattoirs; ➤ Lack of goat-specific products; ➤ Poor quality of grazing; ➤ No fully developed markets for goat meat; 	<ul style="list-style-type: none"> → Employment opportunities created → Improved goat-specific products → Expanded markets for small stock 	<ul style="list-style-type: none"> ✓ Improve community-based rangeland management ✓ Promote value addition in goat meat production 	Medium to long-term	Lead: MAWF Partners: MEATCO NNFU
Marine/Fisheries Development Programme	<ul style="list-style-type: none"> → Strengthened marine fisheries and aquaculture 	<ul style="list-style-type: none"> ✓ Increase investment in aquaculture projects 	Medium – long term	Lead: MFMR

<ul style="list-style-type: none"> ➤ Cultural practices preventing fast uptake of fish as an alternative source of protein among some members of the population; ➤ High cost of feed and infrastructure derailing expansion of inland aquaculture; ➤ Not much linkage developed between fisheries and marine resources on one hand, and nutrition security on the other hand; ➤ Weak linkages between fish production and nutrition; 	<ul style="list-style-type: none"> → development programme → Expanded inland aquaculture → Developed linkages between fisheries/marine resources and nutrition 	<ul style="list-style-type: none"> ✓ Conduct research on inland aquaculture production systems ✓ Integrate fish production and nutrition with more awareness-raising initiatives. ✓ Increase investments in infrastructure development and exploration of alternatives, particularly for the fresh water fish in the region 		Partners: Private Sector
Land Reform and Resettlement: <ul style="list-style-type: none"> ➤ Lack of coordination by service providers; ➤ Affirmative Action Loan Scheme (AALS) benefiting already established farmers; ➤ Pace of land acquisition is slow as willing buyer willing seller is delaying process; ➤ Selection of beneficiaries a challenge; ➤ High cost of farms deterring land purchase by smallholder farmers; ➤ Lack of monitoring and evaluation of impact on the resettled farms; ➤ Lack of collateral requirements to access Agribank loans. Most of the farmers are unable to repay their loans once the subsidised period ends; ➤ Lack of land use plans enforcement leading to overstocking and land degradation; 	<ul style="list-style-type: none"> → Empowered institutions for coordinating service provision → Increased awareness on available loan scheme products, and minimum collateral arrangements → Enhanced enforcement of land use planning 	<ul style="list-style-type: none"> ✓ Enforce Ministry of Agriculture's responsibility as spelled out in the cabinet directive ✓ Conduct awareness campaigns on available loan schemes ✓ Enforce regulations on land use planning 	Medium to Long-term	Lead: MAWF, MLR Partners: Agribank

Pillar 5: Zero Loss or Waste of Food

Where are we today?	Objectives/ Milestones for Next Five Years	Actions	Timeframe Medium/ Long-term	Lead Institution (Key Partners)
Reduction of Food Loss and Waste in General: <ul style="list-style-type: none"> ➤ Although there is evidence of food loss and waste in Namibia, currently there are no comprehensive records about food loss and waste in the country; ➤ The information in this section is undocumented evidence in Namibia, and was collected informally from various stakeholders; ➤ Although Namibia does not produce enough food for its own consumption needs, it is estimated that about 24% of all food calories grown per year are lost or wasted; 	<ul style="list-style-type: none"> → Strengthened evidence on food losses and waste in Namibia → Reduced food loss and waste 	<ul style="list-style-type: none"> ✓ Undertake a comprehensive research on food losses and waste throughout the supply chain to establish the extent of the loss ✓ Train farmers on quality standards of food so they can meet market expectations ✓ Develop an M&E framework to monitor implementation of strategies for food loss and waste ✓ Facilitate learning and information sharing with countries that have best practices ✓ Conduct research on traditional methods of processing food, and sharing results with producers 	Medium term	Lead: MAWF, Partners: Higher Learning Institutions, NPC, UN, NAB, NSA
Food Losses at Production Stage <ul style="list-style-type: none"> ➤ The losses are estimated at 14% for commercial and smallholder farmers while for communal farmers the losses are more than 40% for perishable products; 	<ul style="list-style-type: none"> → Established food safety standards for Namibia 	<ul style="list-style-type: none"> ✓ Disseminate information on food loss and waste 	Medium term	Lead: MAWF,

➤ In maize, sorghum and wheat, the losses are estimated at 20% per production season;	→ Developed framework to reduce food loss and waste	✓ Develop a dedicated policy, or integrate food loss and waste in existing policies, such as the nutrition security policy that is under development		Partners: Namibia Standards Institute, NPC, MITSD, MOEAC, MPESW, UN
Food Losses at Transportation Stage <ul style="list-style-type: none"> ➤ Food losses occur during transit. Accidents may occur during transportation of food products; ➤ Monitoring of cooling systems during transportation is often not possible, since it is inconvenient for the driver to keep stopping in order to monitor the temperature; ➤ Uneven roads might also damage food products and communal farms are often not fully accessible due to poor road conditions; 	→ Revised food handling standards	<ul style="list-style-type: none"> ✓ Develop standards for food handling and management during transportation and storage ✓ Improve transportation cooling systems ✓ Improve feeder road maintenance and enforce road safety regulations 	Medium	Lead: OPM, MOWT Partners: Namibia Standards Institute Lead: MOWT, Partners Road Authority, National Road Safety Council
Food Losses at Retail Stage <ul style="list-style-type: none"> ➤ In supermarkets, food losses occur when supply exceeds demand. Sometimes due to shortage of customers, food remains on the shelves, resulting in a loss of quality; ➤ In 2015, loss and waste from three main supermarkets in the country was estimated to be over N\$90 million annually; ➤ Inappropriate ordering and incorrect projections of demand for food products also result in quantities of merchandise not being sold before the expiration date, or experiencing natural deterioration; 	→ Improved food management and controls	<ul style="list-style-type: none"> ✓ Establish partnership with business/private sector to donate food to charity organisations for the needy ✓ Expedite the establishment of food banks to salvage the food that would otherwise go to waste 	Medium term	Lead: MPESW Partners: Namibia Traders Agency, OPM, UN, Private sector, Faith-based organisations

Food Losses During Storage <ul style="list-style-type: none"> ➤ Unsuitable storage facilities may cause foods to deteriorate in quality; ➤ Temperature fluctuation may occur in storage due to improper management and inconsistent inspection; this can lead to shrinking and swelling of the food product; ➤ Electricity failures, especially at night, affect the cooling systems, which may result in an increase in temperature and therefore food may spoil; ➤ Inadequate implementation of good practices results in maize meal being stored and forgotten; food is damaged by heavy rain, and food rots due to mismanagement; 	→ Established national food storage standards, or standards incorporated into the existing standard	<ul style="list-style-type: none"> ✓ Improve national food storage facilities and expand cold chains and cooling systems ✓ Establish improved and innovative household storage facilities to reduce losses at household level 	Medium term	Lead: MORUD Partners: MAWF, NGOs UN System
Poor Handling and Food Safety <ul style="list-style-type: none"> ➤ The presence of unhygienic personnel and conditions during processing result in an increase in food contamination and food spoilage; ➤ Food loss can also occur if the food is not prepared in the right way (such as overcooking), resulting in food no longer being sold to consumers; 	→ Enhanced coordination on food management	<ul style="list-style-type: none"> ✓ Coordinate different national food assistance programmes to ensure optimal utilisation of food balances to avoid food losses; ✓ Promote food swapping between projects; ✓ Establish a comprehensive commodity management system for all government food assistance programmes; 	Medium term	Lead: OPM, MOEAC, MPESW, Regional Councils, Office of Vice President, UN, NRCS



SUSTAINABLE DEVELOPMENT GOALS

