

THE REPUBLIC OF UGANDA MINISTRY OF WATER AND ENVIRONMENT



Nutrition Mainstreaming Strategy

2023 - 2030



THE REPUBLIC OF UGANDA

MINISTRY OF WATER AND ENVIRONMENT

NUTRITION MAINSTREAMING STRATEGY

2023/2024-2029/2030

MARCH 2023

FOREWARD.

Globally there are challenges in feeding communities. The challenges are in accessing both the right food quality and quantity. This is the reason why global commitments like the World food Programme, scaling up Nutrition Movement 2010, Committee on World Food Security 2013, The Global Panel on Agriculture and Food Systems for Nutrition 2013 and United Nations Decade of Action on Nutrition do exist. These are further reinforced by the international conferences like the first and second International Conferences on Nutrition held in 2015. Rome declaration and Framework for Nutrition 2014, Sustainable development goals 2015 and others.

The Government of Uganda through the Office of Prime Minister embarked on multisectoral approach to curb malnutrition in the country. The Uganda Nutrition Action Plan II (UNAP)2020/21-2024/25 was developed to guide the implementation of Nutrition activities in the Ministries, Departments and agencies. For easy implementation the UNAPII was aligned with the NDP11 2020/21-2024/25 with the theme of "sustainable industrialization for inclusive growth, employment and sustainable wealth creation"

The Ministry of Water and Environment therefore plays a vital role in the promotion, prioritization and provision of better nutrition in addressing this global concern of both malnutrition and stunting of our population. The Ministry provides nutrition sensitive interventions through provision of safe and clean water, provision of water for production, protecting the environment, and provision of water quality services among others.

To have a well-fed healthy body, a balanced diet is a must. This comprises of Carbohydrates, Proteins, Vitamins, Fats, Minerals and WATER. The very most important point to note here is that, clean and safe water is vital for drinking so that our bodies remain well hydrated. It also aids digestion and absorption of all the other food nutrients. Furthermore, all the other food components of the balanced diet require water for their production.

This is the reason why this Ministry is coming up with the Nutrition Mainstreaming Strategy. The main Goal of which is to contribute to improved Nutrition status among children under five years, school-aged children, adolescents, pregnant and lactating women and other vulnerable groups by 2025. This strategy will guide all the Directorates and Departments and agencies like UNMA, NFA, NEMA, NWSC. The strategy also helps us to successfully engage our development partners like the, UNICEF, FAO, World Bank, the International Monetary Fund, the African Development Bank and others. This is not to forget our own NGOs (UWASNET), CSOS, the Private Sector and the Communities on whom the outputs are intended.

I therefore take this opportunity to reiterate my full commitment in providing all the necessary support for the successful implementation of this strategy and encourage all the water and environment stakeholder to optimize the use of the Nutrition Mainstreaming strategy

Hon Sam Cheptoris MINISTER OF WATER AND ENVIRONMENT

ACRONYMS

CCD	Climate Change Department
CEPA	Communication, Education and Public Awareness
CSO	Civil Society Organization
IEC	Information Education Communication
LG	Local Government
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MDA	Ministries Departments and Agencies
MEAL	Monitoring Evaluation and Learning
MWE	Ministry of Water and Environment
NCC	Nutrition Coordination Committee
NDP	National Development plan
NEMA	National Environmental Management Authority
NFA	National Forestry Authority
NGO	Non-Governmental Organization
NWSC	National Water and Sewerage Corporation
0&M	Operation and Maintenance
OPM	Office of the prime Minister
PIAP	Project Implementation Action Plan
PS	Permanent Secretary
SDG	Sustainable Development Goals
UDHS	Uganda Demographic and Health Survey
UN	United Nations
UNAP	Uganda Nutrition Action Plan
UNICEF	United Nations International Children's Emergency Fund
UWASNET	Uganda Water and Sanitation NGO Network
WASH	Water Sanitation Hygiene
WHA	World health Assembly
WHO	World Health Organization
WMZ	Water Management Zone
WSDF	Water and Sanitation Development Facilities
WUC	Water User Communities

Contents

FOREWARD.	ii
ACRONYMS	iii
EXECUTIVE SUMMARY	vii
1.0 INTRODUCTION	1
1.1 Background	1
1.2 The Legal and policy context	4
1.2.1 International and National Commitments.	4
1.2.2 National Legal Policy Frameworks	7
1.3 Purpose of the Strategy	9
1.4 The Process of Developing the Strategy	
1.5 The Structure of the Strategy	11
1.6. Situation Analysis of Nutrition Security	
1.6.1 Nutrition Situation in Uganda	
1.7 Contribution of MWE to desired Nutrition Status	
1.8 Food Systems Approaches	
2:0 THE STRATEGIC DIRECTION	
2.1 Goal for the MWE Nutrition Strategy	
2.2 Objectives of the strategy	
2.3 Strategic Interventions, outputs, output indicators and actions	
3:0 INSTITUTIONAL ARRANGEMENTS	
3.1 Introduction	
3.2 Finance and Administration	
3.3 Water and Environment Sector Liaison Department	
3.4 Water for Production Department	
3.5 Urban Water Supply and Sanitation department (Construction and Management)	
3.6 Rural Water and Sanitation Department	
3.7 Water Resource Planning and Regulation Department	40
3.8 Water Utility Regulation Department	
3.9 Water Quality Management Department	
3.10 International and Trans boundary Water Affairs Department	40
3.11 Water Resource Monitoring and assessment Department	40
3.12 Wetlands Management Department	41

3.13 Forestry Sector Support Department (FSSD)	41
3.14 Environment Sector Support Department	41
3.15 Climate Change Department	42
3.16 Policy and Planning Department	42
3.17 Uganda National Meteorological Authority	42
3.18 National Forestry Authority	42
3.19 National Environmental Management Authority	43
3.20 National Water and Sewerage Corporation	43
3.21 Local Governments	43
3.22 Deconcentrated structures in the Water and Environment Sector	44
3.23 Private sector	44
3.24 Uganda Water and Sanitation Network	44
3.25 The Development Partners	45
3.26 The Communities	45
3.31 The Nutrition coordination committee at MWE will be responsible for:	46
3.32 The roles of the Focal Point Officer	47
3.33 The roles of the Regional Nutrition Focal Point persons	47
4:0 FINANCING OF THE STRATEGY	48
5.0 MONITORING AND EVALUATION	48
5.1 Routine monitoring	49
5.2 Quarterly reporting	49
5.3 Joint Annual Reviews and Annual Reporting:	49
5.4 Mid-term reviews reports	49
5.5 End-of-term evaluation reports	49
6:0 COMMUNICATION AND FEEDBACK ARRANGEMENTS	50
6.1 NATIONAL LEVEL	50
6.1.1 Internal Communication with MWE Staff	50
6.1.2. Public Participation Mechanisms	51
6.1.3 Multi-Media Communication Program	52
6.1.4 Media Advocacy	52
6.1.5 Information, Education and Communication Materials	53
6.1.6 Drama Scripts for both TV and Radio	53
6.2 DISTRICT LEVEL	53
6.3 COMMUNITY LEVEL	53
V	

7:0. RISK MANAGEMENT FOR THE MWE NUTRITION STRATEGY	55
8.0 ANNEXES	61
Annex 1: Cost Implementation Matrix for Nutrition relevant Water for Producti access, Sanitation and Hygiene under NDPIII	i on Water Supply & 62
Annex 3: Results framework for the MWE Nutrition Strategy at outcome level d Implementation Period	uring UNAPII 69
9.0 References	72

EXECUTIVE SUMMARY

Mainstreaming nutrition in the Water and Environment Sector involves integrating nutrition objectives and considerations into the design, implementation, and evaluation of policies, programs, and projects related to water management and environmental sustainability. This approach recognizes the critical linkages between access to safe and clean water, sustainable ecosystems, and good nutrition outcomes.

The Water and Environment Sector can have a significant impact on nutrition outcomes, both positive and negative. For example, poor water quality, inadequate sanitation, and lack of access to safe drinking water can lead to waterborne diseases, malnutrition, and stunted growth in children. On the other hand, sustainable water management practices, such as rainwater harvesting and conservation agriculture, can improve food security and nutrition by increasing access to water for irrigation and enhancing soil fertility.

Mainstreaming nutrition in the Water and Environment Sector requires collaboration across different sectors and stakeholders, including government agencies, civil society organizations, private sector actors, and communities. Key strategies for mainstreaming nutrition include policy and program design that considers nutrition outcomes, strengthening monitoring and evaluation systems to track progress, building capacity for nutrition-sensitive programming, and promoting community participation and ownership.

Several challenges exist in mainstreaming nutrition in the Water and Environment Sector, including limited funding and resources, weak institutional capacity, and inadequate data on the nutritional status of populations. However, there are several opportunities for collaboration, such as leveraging partnerships and mobilizing resources to scale up successful interventions.

Overall, mainstreaming nutrition in the Water and Environment Sector is a critical step towards achieving sustainable development goals related to nutrition, water, and environmental. By working together and adopting a comprehensive and integrated approach, stakeholders can address the root causes of malnutrition and promote sustainable development outcomes that benefit both people and the planet.

vii

In September 2020, Government of Uganda approved the second Uganda Nutrition Action Plan (UNAPII) 2020-2025 that provides a coordinated framework for implementation, monitoring and reporting for improved delivery of multi-sectoral nutrition results in an inclusive manner. Under the UNAPII, the Ministry of Water and Environment (MWE) is expected to provide quality assurance to increase access to nutrition-sensitive water, sanitation and hygiene (WASH) and water for food systems services at all levels. In addition, through the MWE -Nutrition Coordination Committee, the MWE is supposed to strengthen the enabling environment for increasing access to nutrition-sensitive water, sanitation and hygiene (WASH) and water for food systems services at all levels.

In order to implement interventions that contribute to UNAPII and NDPIII goals and objectives, there is a need for UNAP-implementing ministries, departments and agencies (MDAs) and local governments to develop action plans, and annual plans and budgets that clearly outline and elaborate how they contribute to the realization of desired nutrition outcomes. The MWE Nutrition Strategy is therefore necessary to support UNAPII implementation within the existing legal, policy, financing and planning frameworks.

The Goal of the MWE Nutrition Strategy is to contribute to improved nutrition status among children under five years, school-age children, adolescents, pregnant and lactating women and other vulnerable groups by 2030. The Strategy is to be implemented within the institutional framework of the Ministry of Water and Environment and in order to realise this goal, the following three strategic objectives aligned to UNAPII and NDPIII have been formulated;

- Objective 1: Increase access and utilization of Nutrition Sensitive Water for Agricultural
 Production Services
- Objective 2: Increase access to and utilization of nutrition sensitive WASH services
- **Objective 3:** Strengthen the enabling environment for scaling up nutrition-sensitive Water, Sanitation, Hygiene and Water for Production Services

Key expected primary outcomes

The expected results are:

- Increased cumulative water for production storage capacity (Mcm) from 39.3 to 76.82
- Increased area under formal irrigation (ha) from 15,147 to 27,424

- Increased percentage of functional water for production facilities from 86.7% to 89.7%
- Increased access to safe water supply in rural areas from 73% to 85%) and in urban areas from 74% to 100%
- Increased access to basic sanitation (improved toilet coverage) from 19% to 45% and improved handwashing facility from 34% to 50%.

1.0 INTRODUCTION

1.1 Background

The global nutrition community has repeatedly called for greater attention to and investments in WASH as a means to improve nutrition outcomes. The second International Conference on Nutrition (ICN2) organized by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) in November 2014, country delegates adopted the Rome Declaration on Nutrition and the Framework for Action, which recommends "actions on water, sanitation and hygiene". This builds upon the call and commitment made at the first International Conference on Nutrition (ICN) in 1992 to improve access to and use of safe drinkingwater and sanitation services to further address the nutrition challenges. Furthermore, in 55 countries that have joined the Scaling-Up Nutrition (SUN) movement, partners are working together to implement multisectoral action in order to effectively and sustainably deliver nutrition-specific and nutrition-sensitive interventions.

These commitments highlight the need to address underlying causes of undernutrition – including access to and use of drinking-water and sanitation services and improved hand and food hygiene. Globally, in 2014, an estimated 159 million children under 5 years of age were stunted, and 50 million were wasted. The highest rates of undernutrition are reported in Africa, Asia and Oceania (UNICEF/WHO/World Bank),

Sustainable development cannot be realized without nutritional well-being and reaching the 2025 Global Nutrition Targets. Achieving important global health goals, such as ending preventable child and maternal deaths and the global non-Communicable diseases (NCD) targets, will likewise require addressing malnutrition in all its forms. Integrating WASH interventions into nutrition actions can make a difference.

An estimated 663 million people worldwide do not have access to an improved drinking-water source (UNICEF/WHO, 2015), and an estimated 1.9 billion people rely on drinking-water that is faecally contaminated (Bain et al., 2014). Improved water sources that are not operated or maintained properly may deliver water that is microbiologically contaminated (WHO/UNICEF, 2011). In addition, microbial recontamination often occurs during collection of water at the

source, transport and storage within the home (Wright, Gundry & Conroy, 2004). An estimated 2.4 billion people, or one third of the world's population, lack access to an improved sanitation facility, and 13% practice open defecation. Among the world's regions, sub-Saharan Africa and South Asia continue to have the lowest sanitation coverage (WHO/UNICEF, 2015)

According to the Uganda Bureau of standards Nutrition situation report 2018/19-2019/20, Malnutrition threatens to destroy a generation of children in Uganda with more than one third of all young children -2.4 million stunted. The damage caused by stunting is irreversible. Half of children under five and one quarter of child-bearing-age women are anemic. The problem persists despite a drop in stunting and anemia rates in recent years. Whether poor or wealthy, children are malnourished for similar reasons. Women tend to get pregnant when young and have low birth-weight babies, which predisposes children to malnutrition. Repeated childhood infections such as diarrhoea and low breastfeeding rates also lead to wasting and stunting. Families are either too poor, or do not know how to give their children a healthy balanced diet.

Nutrition remains a significant public health threat that requires both WASH and nutrition interventions. Under nutrition is considered as both a cause and a consequence of poverty and is a major contributor to maternal and child mortality in the shorter term as well as non-communicable diseases in the longer term thus negatively affecting all aspects of an individual's health and development hence, impeding economic and social progress at the community and national levels.

The Government of Uganda has given high priority to nutrition by adopting the National nutrition action plan as the Country's frame work for scaling up Multi sectoral nutrition actions during the period 2011-2016 and 2015-2020 and also in the process of finalizing the first ever multi-sectorial National Nutrition Policy (2019-2025) with its attendant Uganda Nutrition Action Plan UNAP II (2020/21-2024/25).

Ministry of Water and Environment has played an instrumental role in improving access to safe drinking water in both rural and urban population, improving household incomes through water for production, and preserving the environment by ensuring reliability of water supply

2

infrastructure. The sector Agencies, institutions and other stakeholders, including CSOs, have also implemented a number of activities which include restoration of wetlands, demarcation of national forestry boundaries and eviction of encroachers, re-afforestation in Central Forestry Reserves, tree planting at community level, protection of major river banks, and water source and catchment protection activities , promotion of human rights to especially the vulnerable groups such as women, children, youth, elderly, HIV/AIDs victims and minority groups. The innervations are done through community sensitisation, capacity building initiatives, monitoring and evaluation public and private sectors' activities in service delivery in rural and urban communities thus, promoting and sustaining community livelihood.

The above initiatives have both a direct and indirect contribution to nutrition specific and nutrition sensitive aspects in communities. It is evident that, the use of safe water, sanitation facilities, good hygiene, and sustainable use of environment and natural resources¹ improves nutritional outcomes by addressing both immediate and underlying causes of malnutrition.

MWE was selected among other focal sectors² to mainstream Nutrition in its activities. However, with the complexity of its activities, nutrition specific aspect has not been noticeable as one of the cross-cutting issues in the sectors' activities and documents. This can be attributed to lack of; awareness about nutrition in the sector, absence of guidelines for mainstreaming nutrition in the sector, and lack of structures to coordinate nutrition related activities, plans, and budget.

The Government of Uganda through the Office of the Prime minister, MWE has made progress by establishing a functional sector Nutrition working group comprising of representatives from the sectors' departments, agencies, and NGOs to spearhead and coordinate nutrition activities in the respective organizations, and other stakeholders like district local Governments, the private sector and, communities.

In spite of the efforts MWE has made so far, there is no clear strategy on how to implement, monitor, and evaluate nutrition in the WASH and ENR activities thus, a need to undertake a

¹ Green vegetation, water, animals, birds, Minerals, clean air etc.

² Ministry of Ministry of health, Ministry of Education and Sports, Ministry of Agriculture, Animal industry and Fisheries, Ministry of Gender, labour and Social Development, Ministry of Local Development, Ministry of Trade, Industries and Cooperatives.

situation analysis to provide a base line information that will inform the sector's nutrition specific guidelines and frameworks, stipulating the Nutrition activities

1.2 The Legal and policy context

The Water and Environment Nutrition strategy has been developed basing on the following policies and legal frameworks which provide an opportunity for all partners to work together, mobilize action and accelerate efforts towards the elimination of hunger, food insecurity and all forms of malnutrition. The main goal of the Nutrition strategy is to contribute in improving nutrition status among children under 5year, school-age children, adolescents, pregnant and lactating women and other vulnerable groups by 2025

The third National Development Plan (NDPIII), the national strategy towards zero-hunger and the second Uganda Nutrition Action Plan 2020/21-2024/25 are some of strategic planning instruments that guides the country towards attaining this Uganda Vision 2040 Nutrition Target of no stunted child at all by 2040. Under UNAP11, the Ministry of Water and Environment will implement Strategy 2.6 -Increase access to nutrition sensitive water, sanitation and hygiene (WASH) services. This is under objective two that states that: to increase access to and utilization of nutrition sensitive services by children under five years, school -aged children, pregnant women and other vulnerable groups.

1.2.1 International and National Commitments.

The Ministry of Water and Environment Nutrition Strategy has been formulated on basis of UNAP11 which was designed on a global outlook. The critical international nutrition declarations, commitments and initiatives informing this strategy include:

International Conferences on Nutrition in 1992 and 2014: The World Declaration and Plan of Action on Nutrition of the first International Conference on Nutrition (ICN) in 1992 outlined nine action-oriented strategies for countries to implement in protecting and promoting nutritional wellbeing for all, including two that were particularly related to water and sanitation (FAO/WHO, 1992). Countries at the second International Conference on Nutrition (ICN2) in 2014 adopted The Rome Declaration on Nutrition and the Framework for Action, which included three recommended actions on WASH, highlighted in Box 3 (FAO/WHO, 2014).

Global nutrition targets 2025: Ministers of Health at the World Health Assembly in 2012 adopted Resolution 65/6 on the Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition, which calls for combined actions in health, food and other sectors, including WASH (WHO, 2012). The targets adopted in this resolution are highlighted below in Box 4. The role of WASH in nutrition is also recognized in the Global Monitoring Framework for the Plan.

World Food Summits: In addition to water and sanitation commitments from Ministers of Health, heads of state and ministers of agriculture have also committed to improved WASH. Official commitments from the World Food Summits in 1996 and 2002 include the role of water and sanitation in achieving food and nutrition security (FAO, 2002).

The Scaling-Up Nutrition Movement (SUN): The SUN movement is a renewed effort to eliminate malnutrition, based on the principle that everyone has a right to food and good nutrition. More than 50 countries are leading a global movement to end malnutrition in all its forms. The SUN approach, recognizing that malnutrition has multiple causes, builds high-level support at the country level to foster collaboration and coordination across issues, sectors and stakeholders to position nutrition in all development efforts. SUN promotes scaling up both specific nutrition interventions as well as nutrition-sensitive approaches, including clean drinking water, improved sanitation facilities and hygiene. The SUN movement calls for **engaging** the people for nutritious foods, **Inspiring** them and **investing** in nutrition

2nd International Conference on Nutrition (ICN), 2015: was an inclusive intergovernmental meeting on Nutrition jointly organized by food and agriculture organization and the world health organization. The focus was on global attention to address malnutrition in all its forms.

Committee on world food security (CFS) 2013: The committee on world food security (CFS) is an international and inter-governmental platform that works to ensure food security and access to Nutrition. It states that food must be available and availability refers to the physical inflow and presence of safe and nutritious food at a given time. This encamps Access to food, Utilization of food and Stability of food

Global Panel on Agriculture and food systems for Nutrition GLOPAN 2013: Global panel on agriculture and food systems for Nutrition works with international, multi-sectoral, to help

governments in low and middle-income countries to develop evidence based polices that make high quality diets safe, affordable and accessible.

Rome Declaration and Framework for Nutrition 2014: The declaration commits countries to eradicate hunger and prevent all forms of malnutrition worldwide particularly under Nutrition in children, anemia in women and children, among other micro nutrient deficiencies as well as reverse the trend in Obesity. It aims to do this by increasing investments in food systems to improve people's diet and Nutrition.

United Nations Decade of Action on Nutrition 2016-2025: The United Nations Decade of action on Nutrition is a Commitment of Members States to undertake ten years of sustained and coherent implementation of policies and Programme, following the recommendations and commitments of the **2nd International Conference on Nutrition (**ICN2) framework for Action and the 2030 Agenda for sustainable development.

The Global Strategy on Water Sanitation and Hygiene to Neglected Tropical Diseases: The strategy supports the achievements of the targets of the 2021-2030 road map on Neglected Tropical diseases (NTDS). It sets out the critical role of Water, Sanitation and Hygiene (WASH) for prevention, Care and Management of NTDS and the WASH efforts results in improved and sustained health and wellbeing outcomes.

Nutrition for Growth Summit, 2021: Nutrition for Growth (N4G) is a global pledging moment to drive greater action toward ending malnutrition and helping to ensure everyone, everywhere can reach their full potential. The Tokyo Nutrition for Growth (N4G) Summit was held in December 2021 under the leadership of the Government of Japan. It was the third global pledging moment, designed to drive greater action toward ending malnutrition and helping and helping ensure everyone, everywhere can reach their full potential.

Nutrition for Growth Summit, 2013: the summit aimed at setting a path to end malnutrition, in particularly for women, infants and young children. *"Ending hunger and malnutrition at home and the world is consequential. If we do nothing today, food insecurity will loom as an even larger and bigger threat tomorrow. you are fostering a world that is more just and peaceful.*

The 2030 agenda Sustainable Development Goals, 2015: provides a shared blueprint for peace and prosperity of people and the planet, now and into the future. it's an action by all countries to work in a global partnership. They recognize that ending poverty and other deprivations must go hand in hand with strategies that improve health and education, reduce inequality, and spur economic growth while tackling climate change and working to prevent our oceans and forests.

1.2.2 National Legal Policy Frameworks

The Constitution of the Republic of Uganda, 1995 under National Objectives and Directive Principles of State Policy XXI provides for Clean and safe water. This legal provision is to ensure that the State takes all practical measures to promote good water use at all levels. State policy XXII ensures that the State takes steps to encourage people to grow and store adequate food, establish national food reserves, and promote proper nutrition through education and other means, in order to build a healthy state. State policy XIII of the Constitution of Uganda ensures protection by the State of natural resources on behalf of the people of Uganda.

The constitution of the republic of Uganda has directive principles that contribute to the realization of the right to adequate food. It states that the state shall take appropriate steps to encourage people to grow and store adequate food, establish national food reserves and encourage and promote proper nutrition through mass education and other appropriate means in order to build a healthy state:

VISION 2040: The national vision is transforming Ugandan society from a peasant to a modern and prosperous country within 30years. The theme is Accelerating Uganda's socioeconomic transformation. To achieve the vision there is need to have nutrition sensitive water and sanitation services.

The National Development Plan NDPIII: The aim is to Increase Household Incomes and Improved Quality of Life of Ugandans through Sustainable Industrialization for inclusive growth, employment and sustainable wealth creation. The vision is to transform Ugandan society from a peasant to a modern and prosperous country within 30 years.

Uganda Nutrition Action Plan (2020/21-2024/25); "a well-nourished, health and productive population effectively participating in the social-economic transformation of Uganda" it aims at leaving No-One behind in scaling up nutrition actions in Uganda and provides a coordinated

framework for implementation, monitoring and reporting for improved delivery of multi-sectoral nutrition results in an inclusive manner. The UNAPII has three strategic objectives and 18 strategies with a number of priority actions and outputs. Under the UNAPII, the Ministry of Water and Environment (MWE) is expected to provide quality assurance for strategy 2.6 of increasing access to nutrition-sensitive water, sanitation and hygiene (WASH) and water for food systems services at all levels.

In order to achieve the expected outcome for this strategy MWE is expected to undertake the following priority actions; Increase access to inclusive, safe water supply in rural areas; Increase access to inclusive sanitation and hygiene services in rural areas; Increase access to inclusive, safe water supply in urban areas; Increase access to inclusive sanitation and hygiene services in rural areas; Provide support to improve WASH services in institutions and Improve nutrition and food safety with emphasis on children under five years and school-going children

The National Water Policy (1999), whose main objective is to manage and develop the water resources in an integrated and sustainable manner. It covers all aspects of water resource management and water infrastructure development. The Policy sets the stage for water resources management and guides development efforts aimed at achieving the maximum net benefit for Uganda from her water resources for the present and future generations while, at the same time promoting the role of the private Sector, User Communities and sustainability of public facilities and services. The Water Policy, the Water Action Plan (1995) and the Water Statute (1995) form a coherent framework for the development, management, and wise-use of the nation's vital water resources and sustainable provision of clean safe water to the citizen.

The National Environment Management Policy, 1995, recognizes that Uganda faces a number of environmental issues that include: land degradation, deforestation, loss of biodiversity, increasing pollution and environmentally related diseases.

The National Policy for the Conservation and Management of Wetland Resources 1995 establishes the principles by which wetland resources can be optimally used now and in the future.

8

The National Climate Change Policy 2014, provides the overarching objective to ensure that all stakeholders harmoniously address climate change impacts and their causes through appropriate adaptation and mitigation measures, while promoting sustainable development and a path to a green economy.

National Irrigation Policy 2018, Implementation of this policy is a joint responsibility of ministries in charge of agriculture and water. The Ministry of Agriculture, Animal Industry and Fisheries is responsible for on-farm aspects of implementation which refers to development of hydraulic infrastructure, associated engineering works and irrigation accessories comprising of conveyance from farm gates to farmers' fields and water use management. The Ministry of Water and Environment is responsible for off-farm interventions which refers to development of hydraulic infrastructure and associated engineering works comprising of water abstraction and conveyance to farm gates. Both ministries jointly provide guidelines to support implementation.

Water for Production Strategy and Investment Plan (2010-2035) emphasizes "A Package Approach" for water for production that not only includes construction and installation of water for production infrastructure, but also the software aspects detailing the mobilization, community-based planning and monitoring processes.

Under the UNAPII objective 3 of strengthening the enabling environment for strengthening the enabling environment for scaling up nutrition-specific and nutrition-sensitive services, strategy 3.2 of improving the planning, resource mobilization, financing and tracking of nutrition investments requires UNAPII implementing MDAs including MWE to develop and implement joint annual nutrition work plans that facilitate reporting to the Multi-Sectoral Nutrition Technical Coordination Committee and follow-up of actions at Sub National Levels

1.3 Purpose of the Strategy

The key objective of the strategy is to guide the MWE actors on the contributions of WASH and Water for production services to Food security and nutrition outcomes. The strategy will highlight the Linkage of Water (availability, access, quality and stability) to Food Security and Nutrition.

The strategy provides strategies, actions, outputs, costs and indicators within the MWE planning frameworks for which if implemented will contribute to improved nutrition outcomes of the most

affected sections of the population. This Nutrition Strategy will work as a management tool to strengthen the MWE's contribution to planning, budgeting, implementation, monitoring and report on WASH- Nutrition programming as provided for in UNAPII.

The Nutrition strategy sets priorities and targets for Nutrition interventions by the water and environment sector prayers and it provides a roadmap to the stakeholders across the nation to accelerate efforts to end malnutrition in Uganda.

1.4 The Process of Developing the Strategy

The Development of the MWE Nutrition Strategy was included in the MWE Ministerial Policy Statement for FY 2021/22 under the Sub-Sub Programme of Urban Water Supply and Sanitation. It is specifically under the budget Output 6 of Monitoring, Supervision, Capacity building for Urban Authorities and Private Operators. This was an initiative of Nutrition Coordination Committee for MWE aimed at responding to the need for MOWE alignment to strategy 2.6 of the UNAPII for which the ministry is one of the Nutrition implementing MDAs. Following this incorporation of the activity in the ministerial policy statement, the Ministry prepared Terms of Reference and recruited a firm to support the nutrition coordination committee. The committee is comprised of officers from all the three directorates that include DWD, DEA, DWRM, MWE Agencies (NWSC, NFA, UNMA, NEMA,) plus UWASNET.

The process involved; desk reviews of nutrition related literature; National and sub national level consultations on WASH -Nutrition programming; Materials Inventory for IEC for WASH-Nutrition. After consultation the first draft MWE Nutrition Strategy and attendant IEC materials were developed and presented to the MWE Nutrition Coordination Committee for input.

Furthermore, the consultations were also done with Ministry of Agriculture Animal Industry and fisheries, Officer of the Prime Minister, UNICEF, UNDP and National Planning Authority among others. The document was further presented during the Water week of 2022 and 2023. Following incorporation of the inputs the final draft of the strategy was prepared and submitted to MWE senior management on 8th May 2023 for input and approval.

1.5 The Structure of the Strategy

This strategy is composed of Seven chapters; Chapter One: Introduction and situation analysis, Chapter two: The Strategic Direction/activities; Chapter Three: Institutional framework for mainstreaming nutrition activities, Chapter Four: Financing the Strategy; Chapter five: Monitoring and Evaluation Framework; Chapter 6: Communication arrangements and chapter Seven: Risk and mitigation measures. The document also has Annexes: Annex one -Cost Implementation Matrix for Nutrition relevant Water, Sanitation and Hygiene under NDPIII, Annex two-Cost matrix for strengthening the enabling environment for scaling up nutrition-sensitive Water, Sanitation, Hygiene and Environment Services at all levels of the MWE Institutional framework, Annex three: Results framework for the MWE Nutrition Strategy at outcome level and Annex 4: Human resource analysis.

1.6. Situation Analysis of Nutrition Security

Undernutrition occurs when people do not eat (or absorb) enough nutrients to cover their needs for energy and growth, or to maintain a healthy immune system. Micronutrient deficiencies are a sub-category of undernutrition and occur when the body lacks one or more micronutrients (e.g., iron, iodine, zinc, vitamin A or folate). These deficiencies usually affect growth and immunity but some cause specific clinical conditions such as anaemia (iron deficiency), hypothyroidism (iodine deficiency) or xerophthalmia (vitamin A deficiency).

Despite the progress in fighting against stunting, more improvement is needed to achieve a classification of medium stunting severity (<20 per cent) and to meet the World Health Assembly (WHA) target of reducing the absolute number of stunted children by 40 per cent by 2025. There is substantial economic disparity, with the prevalence of stunting in each of the poorest three wealth quintiles nearly double that of the richest quintile. There is regional variability in stunting; the prevalence was generally highest in the areas that had the highest poverty (Second Uganda Nutrition Action Plan -UNAPII).

It is important to note that out of 15 sub-regions, 13 have a prevalence of child stunting higher than acceptable levels. This calls for a national effect to scale actions to address stunting in all sub-regions. It is also important to note that four in every ten children born to mothers with no education are stunted, compared to one in every ten children born by educated mothers, per the Uganda Demographic and Health Survey (UDHS) 2016.

1.6.1 Nutrition Situation in Uganda

According to Uganda Demographic Health Survey 2016

- 29% of children under-five years are stunted
- 10% of infants are born with low-birth weight
- 4% are over-weight.
- 53% of under-five children are anaemic.
- 17% of adult women aged 18 years and above are overweight
- 8% of adult men are overweight.
- 3% of adults have raised blood glucose/diabetes
- 24% have raised blood pressure.

The impact of chronic malnutrition (stunting) on a child is -Physical and mental development which has irreversible long-term effects on health and child mortality. Malnutrition has adversely affected the quality of life of children and mothers, despite the variety and quantity of foods that Uganda can produce

1.7 Contribution of MWE to desired Nutrition Status

Access to WASH is recognized as a human right essential for health. Scientific evidence indicates a close link between the lack of WASH and stunting. Adequate water, sanitation and hygiene can improve nutritional outcomes by preventing infectious diseases such as diarrhoea and soiltransmitted infections. Diarrhoea alone is the second-leading cause of death among children under five years of age, and lack of safe drinking water along with inadequate sanitation and hygiene are major risk factors. Children who are affected by undernutrition are more likely to die from diarrhoea. In turn, diarrhoea undermines nutrition by reducing appetite and food absorption.

Children living in unsanitary environments are also exposed to high concentrations of pathogens which may impair intestinal function and negatively affect nutritional status. In addition, the

consumption of safe drinking water instead of sugar-sweetened beverages can be used to counteract obesity as it promotes a decrease in total diet energy intake.

The Ministry of Water and Environment promotes both direct and indirect nutrition value benefits to society. It should be noted that "*water is the most neglected nutrient in your diet, but one of the most vital - Julia Child".*

THE DIRECT BENEFITS INCLUDE:

- Clean and safe water is essential for all the body system processes.
- Promotion of Agro-forestry provides fruits that provide various vitamins, essential oils, proteins and many more human body benefits
- Tree planting along the catchment areas and on dry land guides against floods and landslides.
- Water for production promotes growth of pasture that is essential for animals. Once the animals are healthy, they will provide protein, which is vital for human nutrition
- Water for irrigation boosts production of food and it directly contributes to Nutrition.
- Monitoring and protecting the lakes and wetlands promotes production of different kinds of fish which is the marine protein.



safe and clean water is a direct contribution to nutrition

The indirect benefits include:

- The provision of Sanitary and hand washing facilities allows the body to remain heathy and thereby able to utilize the food substances available to it.
- Water quality monitoring ensures that quality clean and safe water is all the time available for the human bodies for efficient and effective metabolism.
- Sanitation and hygiene massages during sensitization of communities in project enables the community to leave health life styles.
- Feacal sludge trucks and treatment site enables the community safely manage feacal which may course disease if dumped in crude way.
- Women empowerment is good for economic growth and hence purchasing power.
- Charcoal saving stove enables mothers to cook for their children
- Solid waste management Promotes health leaving too.



The above sanitary initiatives aim at promoting health leaving

1.8 Food Systems Approaches

Food systems not only depend on nature, but also exert important pressures on it. The term "food systems" refer to all the elements and activities related to producing and consuming food, as well as their effects, including economic, health, and environmental outcomes. Broadly speaking, greater food production can come from three sources, with starkly different environmental implications: greater land use, greater use of other inputs, and greater

effectiveness and efficiency on how these inputs are used. Historically, most of the increase in food production came from increased agricultural land use.

Nature- Positive Production Systems

In very simple terms Nature-Positive Production Systems means production that maintains and regenerates natural resources: soil, water, biodiversity, but also a conducive climate in which food production can thrive. Humans are also part of this system, so it is also about healthy and safe food, incomes, and livelihoods. Nature-positive food systems are characterized by a regenerative, non-depleting and non-destructive use of natural resources. It is based on stewardship of the environment and biodiversity as the foundation of critical ecosystem services, including carbon sequestration and soil, water, and climate regulation. In other words, the Nature Positive Food Systems refer to **protection, sustainable management** and **restoration** of productive system. Finally, nature positive food systems cover the growing demand for food in a sufficient way and include sustainable and healthy nutrition (UN Paper 2021- Hudson et. al). Nature Positive Food Systems includes protecting, sustainably managing and restoration of productive system. They cover the growing demand for food in a sufficient way and include sustainable are protecting, sustainably managing and restoration of productive system. They cover the growing demand for food in a sufficient way and include sustainable are characterized by a regenerative, non-depleting and

non-destructive use of natural resources. They recognize that biodiversity underpins the delivery of all ecosystem services on which humanity depends

Nature-negative productive systems, refers to food production leading to land degradation (driver for soil erosion, for biodiversity loss, for the depletion of aquifers and fish stocks, but also for ill-health)

Uganda Food systems

The UN Secretary-General, António Guterres, convened a Food Systems Summit in 2021, 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 some degree on healthier, more sustainable and equitable food systems.

Uganda took the initiative with the Office of the Prime Minister (OPM) taking lead as the convener and the National Planning Authority (NPA) and Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), as co-conveners in guiding and coordinating national activities related to

the Food systems Summit. An inclusive National Multi-Sectoral Committee composed of Permanent Secretaries and focal persons from relevant ministries and institutions was constituted.

Technical sub-committees based on the five Action Tracks (ATs) of the Summit were constituted. Each of the ATs was assigned a Chairperson and Co-chairperson from the National Multi-Sectoral Committee, and a UN anchoring agency to support the activities as indicated in the Table below.

Track No.	Track theme	Chairperson	Co-chairperson	UN Anchoring Agency
1	Ensure access to safe and nutritious food for all	Permanent Secretary (PS), MAAIF	Executive Director, Food Rights Alliance	FAO and UNICEF
2	Shift to sustainable consumption patterns	PS, Ministry of Health	National Director, World Vision Uganda	WHO and UNICEF
3	Boost nature positive production	PS, Ministry of Water and Environment	Uganda water and sanitation NGO network (UWASNET)	UNDP
4	Advance equitable livelihoods	PS, Ministry of Gender, Labour and Social Development	Country Director, Care International Uganda	IFAD
5	Build resilience to vulnerabilities, shocks and stress	PS, Ministry of Local Government	Commissioner, Disaster Preparedness and Refugees, OPM	WFP

Action Tracks Constituted in Uganda under the coordination of OPM

Action Track 3: Boost nature-positive food production



Nature-positive food production systems protect nature, rely on sustainable and regenerative practices that enhance the richness and abundance of biodiversity in land and water, and rehabilitate the functions of degraded natural systems to deliver a climate-positive future in which people and nature can thrive.

Our goal

The goal is to boost **nature-positive** production systems at scale to globally meet the fundamental human right to healthy and nutritious food while operating within planetary boundaries.



Our aspirational outcomes

Protect natural ecosystems against new conversions for food and feed production

Manage sustainably existing food production systems to the benefit of both nature and people

Restore and rehabilitate degraded ecosystems and soil function for sustainable food production.

Source: The food systems summit, 23 September 2021 | New York

Biodiversity and well-functioning ecosystems underpin sustainable food production and the ability to deliver on the Sustainable Development Goals. Given the urgency and scale of change needed, a shift in food production must aim to enhance natural capital and its delivery of ecosystems services that support humanity. The global goal of the food systems approach for water and environment is "to boost nature-positive production systems at scale to globally meet the fundamental human right to healthy and nutritious food, while operating within planetary boundaries". This goal encompasses three elements which MWE plays an important supportive role, i.e.

Protect Nature: Protect natural ecosystems against new conversions for food and feed production.

Manage sustainably: sustainably manage the existing food production systems to the benefit of both nature and people.

Restore and rehabilitate: Restore and rehabilitate degraded ecosystems and soil function for sustainable food production.

Actions to Boost Nature-Positive Production Systems exist in the NDPIII action plans of Natural Resource, Environment, Climate Change, Land and Water Resources Management. The Ministry of Water and Environment will play a supportive role to the global goal of Food systems through ensuring a regenerative, non-depleting and non-destructive use of natural resources based on stewardship of the environment and biodiversity as the foundation of critical ecosystem services, including carbon sequestration and soil, water, and climate regulation. Despite the existence of interventions to Boosting Nature-Positive Production Systems under the Food System approach there exist a number of challenges to be addressed. These challenges include:

Challenges for Sustainable management of existing food production systems

It should be noted that the local farmers are the key producers of food hence face the following challenges: access to markets, lack of information; soils are depleted without sufficient periods of regeneration; intensification in the use of lands; lack of drought mitigation and preparedness; inadequate systems for handling foods; gaps in extension services; lack of appropriate infrastructure; farmers do not easily access to high quality seed which are resistance to pests; plants need extensive spraying unlike the local seeds that our ground parents used and Chemicals use has adverse effects on the environment.

Challenges of Protected natural systems and protected areas from new conversions for food production and saving and setting aside some land and water back to nature.

Integrated Catchment Management – it is not at the required scale; Wetlands Restorations are not the required scale; Water for Production is not to the required scale. Only 1% of the potential will be covered by current interventions; Water harvesting is not to the required scale; Rain fed systems; there is need to improve weather forecasting and Early Warning Systems, Policy Statements e.g., Water Policy etc. are not reflected issues of Integrated catchment management. Parish Development Model not reflected in the policies. Karamoja – Valley tanks have not lived their lifespan because of silting and the cost of de-silting is higher than the construction. Artisanal miners using mercury that ends up in the underground water system, Early warning systems not adequate and need to be strengthen, In Eastern Uganda, increasing populations have led to land fragmentation, degradation, encroachment on swamps e.g., in Palisa, all swamps are used for growing rice.

Challenges to restore and rehabilitate degraded systems for sustainable food production and ecosystem services.

Water resources are under threat due to high levels of Pollution from industries, mining, agriculture farms, municipal councils, towns, and households. The high mercury concentration used by artisanal small-scale miners in the mining activities runs off into rivers, streams, lakes and wetlands and accumulates into along the food chain and can course harm to marine organisms and human or other organisms which feed on marine organisms.

Degraded ecosystems in forests, wetland, river buffer zones, lake buffer zones, in mountainous areas and other biological hot sports need to be planted with trees, shrubs, grasses and other suitable vegetation for improved ecosystem functionality. Communities want to plant trees to obtain building materials, fruits for food security, mitigation against climate change effects and improve their income through forests produce sales. However, all these efforts require funding internal and external organizations yet such support is often limited.

The cost of Rising tree seedlings for conventional tree planting is quite high. Drought, bush fire, termites, browsing by animals and other challenges limit the survival of planted tree seedlings in the field there by reducing the cost effectiveness of forestry investments. The increased population growth that has driven people to wetlands thereby exposing the ecosystems to high rate of degradation. The high rate of the refuge influx has exerted pressure on land; there are biological and environmental risks associated with climate change that result in pests explosion and increase in diseases occurrences.

Enabling environment for scaling up nutrition-sensitive Water, Sanitation, Hygiene and Water for Production Services Intervention.

Nutrition coordination and partnerships at all levels of the institutional framework for MWE is weak. This is evidenced by lack of a nutrition stakeholder and action mapping for improved

WASH-Nutrition linkages. There is weak functionality of Nutrition Coordination Committee (NCCs) as it's in its infant stage of development. There is also lack of annual WASH-Nutrition linkages implementation reviews in Planning, resource mobilization, financing and tracking for WASH-Nutrition investments. There is need to Undertaking annual expenditure reviews for nutrition-sensitive Water, Sanitation, Hygiene and Environment Services. There is also need to development and implementing a resource mobilization and tracking plan for WASH-Nutrition Linkages. There is Weak institutional and technical capacity for scaling up actions that promote WASH –Nutrition. There is no nutrition capacity assessments for nutrition to be included in the framework for capacity development for the MWE.

Protection and Restoration of Water-related Ecosystems.

Protection and conservation of watersheds can have protective effects on child health and nutrition, by reducing seasonal water shortages, sediment loads and the incidence of waterborne and insect vector-transmitted diseases (Herrera et al. 2017). Environmental degradation has been associated with food insecurity, and malnutrition and certain ecosystem types are associated with greater infant mortality Fanzo et al. (2017), but little evidence has been generated on these linkages.

Water Management for Nutrition

In order to contribute to sustainable, resilient food systems for healthy diets the UN Decade of Action provides a recommendation on water management for nutrition (Rec.50) which is to implement policies and programmes using participatory approaches to improve water management in agriculture and food production. This recommendation on water management for nutrition defines the scope of nutrition sensitive interventions in this strategy under the NDPIII programme of Agro-industrialization particularly on the intervention of water for production. The nutrition sensitive intervention here are implemented under the following objectives of this strategy.

- Increase access and utilization of Nutrition Sensitive Water for Agricultural production
- Increase access and utilization of Nutrition Sensitive Water, Sanitation and Hygiene Services

• Strengthen the enabling environment for scaling up nutrition-sensitive Water, Sanitation, Hygiene and Water for Production Services Intervention

Improving water management aims to improve the productivity of agriculture and food systems for food security and nutrition, given existing water constraints. This can be achieved by improving water efficiency and by improving agricultural water productivity in rain-fed and irrigated systems.



The above picture shows how Technology can support producing more from less.

Climate change and environmental degradation threatens the sustainability of the food systems hence need for actions for the transformation of food systems in Uganda. There is therefore need to improve environment, water resource conservation and resilience to climate effect. Food systems Actions include:

- 1. Promotion of climate -smart agricultural practices such as Mulching, minimum tillage, agro -forestry among others.
- 2. Promote sensitization, supervision and enforcement of land, environment and water resources conservation and management.

- Restoration of degraded land and soil productivity especially in areas affected by drought and floods by upscaling integrated catchment management and land scape restoration programs.
- 4. Exploitation of ICT to strengthen early warning systems and emergency response mechanisms for managing disasters such as droughts, floods and outbreak of pests and diseases are vital for mitigating climate change impacts.
- 5. Protect natural ecosystems against new conversions for food and feed production.



Medium and Small-scale irrigation is necessary for food systems

Sanitation and Hygiene

To contribute to safe and supportive environments for nutrition at all ages, the UN Decade of Action on Nutrition provides two recommendations on Sanitation and hygiene (Recommendations 51 and 52) as follows:

 Invest in and commit to achieve universal access to safe drinking water, with the participation of civil society and the support of international partners (Recommendation 51). Implement policies and strategies using participatory approaches to ensure universal access to adequate sanitation and to promote safe hygiene practices, including hand washing with soap (Recommendation 52).

Linkage from Water to Food Security and Nutrition

Included in the Agenda 2030 for Sustainable Development (the SDGs) are two goals that are most relevant for this MWE Nutrition Strategy. Goal 2 is "End hunger, achieve food security and improved nutrition and promote sustainable agriculture", while Goal 6 is "Ensure availability and sustainable management of water and sanitation for all". Therefore, management of water, food security and nutrition are clearly interlinked, given that the production of food is largely based on water.



Figure 1: Linkage from Water to Food Security and Nutrition. Source: <u>www.madforwater.eu</u>

There exists a variety of interdependencies between SDG 6, on water, and SDG 2, on food security and nutrition. Ending hunger and malnutrition requires access to safe drinking water (SDG 6.1) as well as equitable sanitation and hygiene (SDG 6.2). The underlying productivity (SDG 2.3) and sustainability (SDG 2.4) of agricultural systems is dependent on adequate availability (SDG 6.4 and 6.6) of good quality (SDG 6.3) water and thus of many of the targets encapsulated in SDG 6. Water and Nutrition are linked in a number of ways. Evidence base exists on linkages between water, sanitation, hygiene and nutrition and between irrigation and nutrition. The importance of understanding these connections has been highlighted as we pursue the United Nations Sustainable Development Goals (SDGs), which challenge mankind to meet both water security and food and nutrition security goals, while also improving water-based ecosystems. It has become increasingly clear that progress toward these goals can only be achieved if measures in the food and nutrition space do not constrain progress on SDG 6 on water and if measures undertaken to support targets under SDG 6 also support nutrition outcomes.

Management of water, food security and nutrition are clearly interlinked, given that the production of food is largely based on water. Included in the Agenda 2030 for Sustainable Development (the SDGs) are two goals that are most relevant to the Ministry of Water and Environment (MWE) Nutrition Strategy 2023-2030. Goal 2 is "End hunger, achieve food security and improved nutrition and promote sustainable agriculture", while Goal 6 is "Ensure availability and sustainable management of water and sanitation for all".

Interdependencies between SDG 6, on water, and SDG 2, on food security and nutrition are outlined in Table 1. Ending hunger and malnutrition requires access to safe drinking water (SDG 6.1 and SDG 6.1.1) as well as equitable sanitation and hygiene (SDG 6.2). The underlying productivity (SDG 2.3) and sustainability (SDG 2.4) of agricultural systems is dependent on adequate availability (SDG 6.4 and 6.6) of good quality (SDG 6.3) water and thus of many of the targets encapsulated in SDG.

24

Table 1: Nature of interdependencies between	SDG6 and SDG2 that inform the Situation	Analysis and Strategic direction of the MWE
Nutrition Strategy.		

SDG 2 Targets MWE Nutrition strategy	SDG 6 Targets MWE Nutrition Strategy Relevant Targets	Nature of interdependencies
relevant Targets.		between SDG 6, on water, and
		SDG 2 on zero hunger.
2.1 By 2030 end hunger and ensure access	6.1 By 2030, achieve universal and equitable access to safe and	Ending hunger requires access to
by all people, the poor and people in	affordable drinking water for all	safe drinking water (SDG 6.1 and
vulnerable situations including infants, to	6.2 By 2030, achieve access to adequate and equitable sanitation	6.1.1) as well as equitable
safe, nutritious and sufficient food all year	and hygiene for all and end open defecation, paying special	sanitation and hygiene (SDG 6.2).
round	attention to the needs of women and girls and those in vulnerable	
	situations	
2.2 By 2030 end all forms of malnutrition.	6.1 By 2030, achieve universal and equitable access to safe and	Ending malnutrition requires
including achieving by 2025 the	affordable drinking water for all	access to safe drinking water
internationally agreed targets on stunting	6.2 By 2030, achieve access to adequate and equitable sanitation	(SDG 6.1 and 6.1.1) as well as
and wasting in children under 5 years of	and hygiene for all and end open defecation, paying special	equitable sanitation and hygiene
age, and address the nutritional needs of	attention to the needs of women and girls and those in vulnerable	(SDG 6.2).
adolescent girls, pregnant and lactating	situations	
women, and older persons		
2.3 By 2030 double the agricultural	6.3 By 2030, improve water quality by reducing pollution,	Productivity (SDG 2.3) of
productivity and the incomes of small-	eliminating dumping and minimizing release of hazardous	agricultural systems Dependent
scale food producers, particularly women,	chemicals and materials, halving the proportion of untreated	on adequate availability (SDG 6.4

indigenous peoples, family farmers,	wastewater and substantially increasing recycling and safe reuse	and 6.6) of good quality (SDG
pastoralists and fishers, including through	globally	6.3) water
secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes 	
2.4 By 2030 ensure sustainable food	6.3 By 2030, improve water quality by reducing pollution,	Sustainability (SDG 2.4) of
production systems and implement	eliminating dumping and minimizing release of hazardous	agricultural systems is
resilient agricultural practices that	chemicals and materials, halving the proportion of untreated	Dependent on adequate
increase productivity and production, that	wastewater and substantially increasing recycling and safe reuse	availability (SDG 6.4 and 6.6) of
help maintain ecosystems, that	globally.	good quality (SDG 6.3) water
strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality	 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes 	
Access to safe and affordable drinking water for all.

Universal and equitable access to safe and affordable drinking water is essential for nutrition and health, and some evidence exists on the linkage between water supply and nutrition. While in the SDG 6 targets, water supply and sanitation are separated, when it comes to improving nutrition and health outcomes, these water interventions are in reality typically combined with hygiene under a water supply, sanitation and hygiene (WASH) package. Ensuring all WASH projects incorporate nutrition objectives can enhance impact and help to achieve SDG 2 targets.

Access to safe water is associated with reduced incidence of enteric infection and reduced incidence of disease in pregnant women. Access is also important for reducing maternal and neonatal mortality rates. This in turn can reduce stunting and improve nutrition outcomes during the first 1,000 days (Cumming and Carincross 2016). *"The first 1,000 days refer to a child's life from the moment they are conceived until they reach 2 years of age. This is the time when the brain, body and immune system grows and develops significantly. During pregnancy, your health, nutrition and stress levels can have an effect on your baby's future". https://www.pregnanybirthbaby.org.au*

Access to adequate and equitable sanitation and hygiene for all.

Similar to access to safe water, evidence exists on linkages between access to adequate sanitation, hygiene practices and nutrition. Access to improved sanitation is associated with better health and nutrition outcomes (Freeman et al. 2017). Smith and Haddad (2015) calculated that roughly 14% of the total decline in stunting between 1970 and 2010 resulted from improved sanitation. Reducing the practice of open defecation in particular may have the greatest impact on child health (Wolf et al. 2018). In 2015, 892 million people worldwide still practiced open defecation, and 2.3 billion people lacked adequate sanitation facilities, with the highest rates observed in Central and South Asia (30%) and sub-Saharan Africa (23%) (WHO and UNICEF 2017).

Delivering equitable access to sanitation services and making progress on target 6.2 (By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations) of UN SDG6 requires a better understanding of access and usage barriers. Disparities in access to

sanitation and hygiene are driven by a range of interrelated and complex factors, such as socioeconomic status, gender, age and location. Children who lack access to sanitation are more likely to be malnourished, and these deprivations interact to magnify the effects of undernutrition (WBG 2017).

Access to safe water supply as well as improved sanitation and hygiene practices can decrease the incidence of diarrhea in young children. A systematic review and meta-analysis of health impacts of water and sanitation interventions show reductions in diarrhea morbidity, with evidence supporting greater reductions in diarrhea for households that have piped water connections and that are situated in communities with higher coverage of improved sanitation (Wolf et al. 2014).

Water Quality

Addressing water pollution and treating wastewater is essential to maintaining water quality appropriate for food production, and thus improving nutrition outcomes. Nutrition and health should be recognized as benefitting from improved implementation of Target 6.3 (By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally) of UN SDG6, and adverse impacts from pollution need to be better monitored and documented.

Use of wastewater or polluted water for the irrigation of crops, and particularly nutrient-dense vegetables, is likely to result in millions of disease incidences every year, largely unreported, as well as in thousands of deaths (Thebo et al. 2017). Similarly, the use of polluted water and lack of proper hygiene in local markets, in food preparation at home and in agro-food processing can harm nutrition and health outcomes. Some of this pollution is directly caused by agricultural management practices, while other pollution derives from lack of treating industrial and municipal wastewater and some originates from the mining industry.

Water-Use Efficiency

Reducing water scarcity and ensuring more sustainable water withdrawals can support nutrition and health outcomes. But, a focus on increasing water-use efficiency in irrigated agriculture might have the opposite effect. Agriculture is the largest water user, yet sustainable agricultural water use is not explicitly called for in the SDG 6 targets, and linkages between agricultural water use and nutrition and health are not addressed, hence the need of the food systems approach to address water for production and irrigation.

Water scarcity compounds the risks faced by the poor in accessing water resources for household and agricultural use. For example, water scarcity increases the time spent collecting water, the burden of which falls mainly on women and young girls, reducing their time available for doing other economic activities that generate incomes which can be used to buy nutritious foods like eggs, milk that have high protein value necessary for children. Seasonal water shortages may also result in households using unsafe water sources, contributing to higher incidence of waterrelated disease. Conflict-induced water insecurity can place populations at severe risk of disease and malnutrition.

Water scarcity also reduces the capacity of water bodies to dilute pollution and can put food production at risk both in the rainy season and in cases of severe and long-term drought, throughout the year. As such, improving water productivity, i.e., using less water per unit or value of nutritious food produced and directing water to more nutritious crops, is beneficial for food security and nutrition. Irrigation interventions yield several benefits for farmers - including higher incomes and lower labor, energy and fertilizer costs. However, these interventions often lead to an increase in water consumption (in part because farmers tend to extend the area under irrigation) and subsequent reduction in downstream water availability. Thus, increasing water-use efficiency without reducing overall water allocation to irrigation schemes or farmers will generally not result in overall water savings that can be used by downstream users or ecosystems (Grafton et al. 2018). As such, misguided interpretation of Target (and Indicator) 6.4. could put at risk the achievement of nutrition and food security targets. While some forms of irrigation can

increase water shortages for domestic uses and thus nutrition and health, others can provide water for multiple uses and improved nutrition.

Water for Agriculture

Water for Production (WFP) includes water supply to industry and services, as well as irrigation and livestock water provision. While some industries self-supply water, it would be beneficial to increase MWE's capacity and ability to serve all customers in order to facilitate management of water resources. Expanded irrigation coverage as proposed in the national Irrigation Master Plan (MWE 2011) and the Agriculture Sector Investment Strategy (MAAIF 2011), has the benefit of improved crop yields, improving income for farmers and increasing available food supply.

A healthy diet



¹⁶

2:0 THE STRATEGIC DIRECTION

2.1 Goal for the MWE Nutrition Strategy

To contribute to improved nutrition status among children under five years, school-age children, adolescents, pregnant and lactating women and other vulnerable groups by 2025.

2.2 Objectives of the strategy

In order to realize the goal of this strategy, the following three strategic objectives aligned to UNAPII and NDPIII have been formulated;

Nutrition actions

- 1. Increase access and utilization of Nutrition Sensitive Water for Agricultural Production Services
- 2. Increase access to and utilization of nutrition sensitive WASH services
- Strengthen the enabling environment for scaling up nutrition-sensitive Water, Sanitation, Hygiene and Water for Production Services

Food System Actions

Promotion of climate -smart agricultural practices such as Mulching, minimum tillage, agroforestry among others.

- 1. Promote sensitization, supervision and enforcement of land, environment and water resources conservation and management.
- Restoration of degraded land and soil productivity especially in areas affected by drought and floods by upscaling integrated catchment management and land scape restoration programs.
- 3. Exploitation of ICT to strengthen early warning systems and emergency response mechanisms for managing disasters such as droughts, floods and outbreak of pests and diseases are vital for mitigating climate change impacts.
- 4. Protect natural ecosystems against new conversions for food and feed production

2.3 Strategic Interventions, outputs, output indicators and actions

To realize the objectives and targets of this strategy, the following priority actions will be undertaken by various state and non-state actors implementing respective nutrition relevant NDPIII action plans for which the Ministry of Water and Environment contributes to under the NDPIII programmes of Agro-industrialisation and Human Capital Development.

Objective 1: Increase access and utilization of Nutrition Sensitive Water for Agricultural Production

NDPIII Programme Sub Proposed NDPIII strategic actions					
-intervention					
Construct new	Construct 23 new irrigation schemes ie Acomai, Atari, Amagoro,				
irrigation schemes and	Nabigaga, Rwimi, Nyimur, Musambya, Kibimba, Kabuyanda,				
complete those under	Matanda/Enengo, Igogero, Angololo, Kagera, Namatala, Namulu,				
construction	Sipi, Unyama, Lumbuye, Nyabanja, Palyec, Porongo, Lopei and				
/rehabilitation	Imvepi irrigation schemes constructed; complete feasibility studies				
	and detailed designs for new proposed schemes of kiige, Odina,				
	Ongom, Agwata and Atera				
	Complete the construction/rehabilitation of; Doho Phase II, Mubuku				
	Phase II, Wadelai, Tochi, and Olweny				
	Develop 16 model irrigation schemes at the 16 Public research				
	institutes				
	Establish O&M and institutional management structures for				
	irrigation schemes and water for production facilities				
Develop solar powered	Make designs and construct small-scale irrigation systems/ schemes				
systems for small	Construct small scale solar powered water supply irrigation systems				
holder farmers outside	Construct micro small-scale irrigation schemes				
conventional irrigation					
schomos					
3011011103					
Develop infrastructure	Develop feasibility studies/ Preliminary designs and prepare detailed				
and services for bulk	designs of dams; Construction of new multi-purpose water				
water storage and	development schemes of; Kyenshama Geregere, Ojama Makokwa,				

Table 2.1: Nutrition Strategy alignment with NDPIII Agro-Industrialisation Programme

transfer including	Kyahi, Kakingole, Kokonyuko, Korisae Lothar, Girik, Komothing,
water abstraction	Achorichori, Katabok, Kulodwongo, Katabok, Kaputh, Longore,
systems, transmission	Naoyamuwe, and Kokyeyo. Lemsui, Nakonyen and Nangololapolon;
mains, water pumping	construct valley 23 dams; establish 12 water reticulation systems in
systems, storage	the selected NAGRC&DB Centre farms; procure construction
	equipment; construct community and individual valley tanks;
	Establish management structures for multi-purpose bulk water
	schemes; Select, form and train water user associations
	Establish management structures for multi-purpose bulk water
	schemes; Select, form and train water user associations
	Finalize the preparation of National Irrigation Master Plan
	Using the Parish Model, promote water management technologies
	for smallholder farmers (e.g., water harvesting, irrigation)

Objective 2: Increase access and utilization of Nutrition Sensitive Water, Sanitation and Hygiene Services

All-nutrition sensitive sub interventions and their respective actions have been mapped out to fall under objective two as indicated in the table below.

NDPIII Programme	
Sub -intervention	NDPIII Actions
Invest in effective management of the entire WASH value chain segments such as containment, emptying, transportation, treatment safe reuse	Social behavior change communication for use of hand washing with water, investment in public hand washing facilities in rural and urban areas Develop and promote Innovative approaches Construction of pro-poor public stand posts in Small Towns Construction of pro-poor public stand posts in Large Towns
or disposal	Towns

 Table 2.2: Strategy alignment with NDPIII Human Capital Development Programme

Increase household connection in Small Towns

Social behavior change communication for construction and use of improved sanitation facilities in urban areas

Social behavior change communication for construction and use of improved sanitation facilities in urban areas

Construct New Faecal sludge treatment plants

Upgrade Waste Water Treatment Plants

Small trucks and Emptier trucks

Construct Transfer Stations/Collection points constructed

Construct of public toilets

Expand the Sewerage Pipe Network (km Laid)

Connect new sewer customers to increase access to Sewerage Services (New sewer connections)

Develop water supply system targeting industrial parks

Expand Sewerage /Waste water treatment systems targeting industrial parks

Test water samples for compliance with national standards

Undertake Catchment and water source protection measures in rural and urban areas

Construct solar energy packages to improve energy efficiency of existing schemes

Extend Water supply infrastructure to institutions (schools, prisons, Barracks, Religious establishment, health facilities, etc)

Provide schools with basic sanitation and hand washing facilities

Develop Water Supply and Sanitation Master Plan

Promote usage of safe water at households using the school as an entry point

Objective 3: Strengthen the enabling environment for scaling up nutrition-sensitive Water, Sanitation, Hygiene and Water for Production Services Intervention

Intervention 1: Strengthen nutrition coordination and partnerships at all levels of the institutional framework for MWE.

Priority Actions

- Conduct nutrition stakeholder and action mapping for improved WASH-Nutrition linkages
- Strengthen the functionality of Nutrition Coordination Committee (NCCs) at MOWE level.
- Undertake annual WASH-Nutrition linkages implementation reviews

Intervention 2: Improve the planning, resource mobilization, financing and tracking for WASH-Nutrition investments

Priority Actions

- Develop and implement the annual nutrition work plans to promote WASH-Nutrition Linkages at levels of the institutional framework for MWE
- Undertake annual expenditure reviews for nutrition-sensitive Water, Sanitation, Hygiene and Environment Services
- Develop and implement resource mobilization and tracking plan for WASH-Nutrition Linkages

Intervention 3: Strengthen institutional and technical capacity for scaling up actions that promote WASH -Nutrition Linkages

Priority Actions

- Conduct nutrition capacity assessments for the MWE
- Develop nutrition capacity development framework for the MWE
- Implement the nutrition capacity development framework for MWE
- Development of efficient and effective new WASH-Nutrition relevant technologies developed
- Develop and promote Innovative approaches relevant to WASH-Nutrition

- Pilot New water supply, sanitation and environment protection technologies and Innovations
- Develop Training manuals, guidelines and materials relevant WASH-Nutrition
- Undertake Training of community groups in new water supply, sanitation and environment protection technologies and approaches relevant to WASH-Nutrition
- Conduct training of MWE professionals in new water supply and sanitation technologies and approaches relevant to WASH-Nutrition
- Support District Local Governments in ensuring compliance to the National and MDA guidelines and standards related to WASH-Nutrition linkages
- Support urban farming initiatives

Intervention 4: Strengthen Advocacy, Social Mobilization and Behaviour Change for promotion of WASH -Nutrition Linkages

Priority Actions

- Implement the WASH –Nutrition components of the nutrition advocacy communication plan fully aligned with the 'UNAP II' strategic direction
- Support implementation of regional-specific WASH –Nutrition advocacy and communication campaigns
- Mobilize and institute high-level nutrition advocates to actively advance the WASH Nutrition agenda at MDA level
- Develop WASH –Nutrition advocacy briefs and technical briefs for use in promoting Nutrition Advocacy
- Develop WASH Nutrition commitments scorecards at MDAs level
- Sensitize the community on the dangers of poor sanitation and the linkage with nutrition.
- Sensitize the community on nutrition situation in Uganda and stunting levels.
- Include nutrition representative on the water and sanitation committee.

Intervention 5: Strengthen and institutionalize WASH-Nutrition linkages evidence and knowledge management for effective decision making.

Priority Actions

- Undertake regular monitoring, evaluation, accountability and learning (MEAL) for the WASH-Nutrition sensitive indicators
- Develop, disseminate and enhance the use of evidence-based WASH-nutrition knowledge products
- Implement WASH-Nutrition research
- Build the capacity of MWE staff implementing WASH-Nutrition actions in making better use of evidence and data to design and implement WASH-nutrition-related policies and programmes
- Generate Appropriate Technology Research proposals with a focus on WASH-Nutrition linkages and conduct WASH-Nutrition linkages applied research.

3:0 INSTITUTIONAL ARRANGEMENTS

3.1 Introduction

Mainstreaming nutrition activities into the Ministry of Water and Environment sector will involve different sectors undertaking different nutrition activities. The combined output will enable the sector to achieve the different objectives of this nutrition strategy.

The Ministry of Water and Environment will work closely with other Government Ministries, Departments, Agencies, Local Governments, the Private Sector and Non-Governmental Organizations (NGOs) and other stakeholders at Community, District, National and International levels to achieve the strategic objectives as indicated in the strategic direction. An indication of the different roles that will be played by different departments in mainstreaming nutrition activities in the Water and Environment sector is thus:

3.2 Finance and Administration

Responsible for finance and personnel management at MWE and plays a vital role in mainstreaming nutrition activities in the following ways:

Tracking and monitoring the impact caused by mainstreaming nutrition activities in the Water and Environment Sector

Responds and explains issues about the workplace nutrition activities status and policy

Ensures that activities for mainstreaming nutrition are incorporated into departmental work plans and are implemented as planned.

3.3 Water and Environment Sector Liaison Department

This department is the home of the software working group responsible for coordinating and development of community mobilization guidelines, strategies and manuals and therefore plays vital role in mainstreaming nutrition activities in the water and environment sector. The community mobilization manuals prepare and empower communities to manage, maintain and utilize water and environment resources in a sustainable manner. This department will incorporate the nutrition issues in the community mobilization guidelines and the participatory methodologies used in community Mobilization Approaches. Community mobilization will

provide information and knowledge on nutrition and identify factors that enable the communities to comply undertaking nutrition mainstreaming activities into their annual routines.

3.4 Water for Production Department

With its mandate being to provide water for crops, livestock and wild life, aquaculture and rural industries, this department will be at the centre of mainstreaming nutrition activities in the water and environment sector. The water for production department undertakes community mobilization activities before construction of water facilities and this will provide an avenue for cascading nutrition relevant information to the communities. The provision of water for production facilities itself increases production of crops, hence, empowering the communities to improve their nutrition levels and increase income, thereby reducing the threat paused by undernutrition and malnutrition. The department will also spearhead the activities under the Food Systems of boosting nature positive production.

3.5 Urban Water Supply and Sanitation department (Construction and Management)

With its target of small towns and town councils, its activities which include reliable water supply to the urban communities will result into improved nutrition and health of the urban communities. The department will also build the capacity of its staff to sensitize the urban communities to practice simple urban farming practices (backyard gardening, planting high value crops in family compounds and zero grazing) to reduce vulnerability of the urban communities to malnutrition and undernutrition.

3.6 Rural Water and Sanitation Department

The rural water and sanitation department works through the LGs to deliver water and sanitation services to the communities. In liaison with LGs, the department guides and oversees community mobilization efforts through which various nutrition action plans of this strategy will be disseminated to the communities for implementation. By providing clean and safe water to communities, it reduces their susceptibility to water borne diseases (eg diarrhea, dysentery, Bilharzia etc) and hence contributes to the positive effects of nutrition.

3.7 Water Resource Planning and Regulation Department

The department plans, monitors and coordinates activities for planning and allocation of water resource use between sectors; regulates and maintains water reservoirs and lakes; administers and issues water permits; controls environmental impacts related to water resources projects; formulates and reviews water policies and laws; resolves conflicts over water use and monitors and enforces compliance to the Water Act and permit conditions.

3.8 Water Utility Regulation Department

Through its responsibility of setting, monitoring and enforcing water service standards, the department's awareness raising activities provide an opportunity for mainstreaming nutrition activities. The department will therefore integrate nutrition awareness messages in its efforts to keep the stakeholders and the public informed about service performance through information dissemination.

3.9 Water Quality Management Department

This department is responsible for ensuring high quality standards of water for consumption in the country. It will ensure that all staff are sensitized on nutrition relevant subjects and the role of safe water in the improvement of the quality of life of communities susceptible to malnutrition and undernutrition. Dissemination will be done during community mobilization and sensitization meetings.

3.10 International and Trans boundary Water Affairs Department

The awareness, capacity and confidence building activities for trans boundary water resource management undertaken by the department provide an opportunity for integrating nutrition activities for both the staff and the communities.

3.11 Water Resource Monitoring and assessment Department

The department monitors, collects, quality controls and archives hydrometric data from hydrometric stations across the country. The data is needed for planning, development, management and optimal utilization of water resources of the country and related infrastructure. This helps the sector to make informed decisions for provision of water of adequate quantity and quality for al social and economic needs for the present and future generations

3.12 Wetlands Management Department

The wetlands management department is mandated to manage wetland resource and its goal is to sustain the biophysical and socio-economic values of the wetlands in Uganda for present and future generations. Wetlands are a source of livelihoods to many Ugandans and hence directly contribute to the attainment of SDG 2. The Wetlands management department guides districts on implementation of district wetland plans. Therefore, the district wetland plans will align to include nutrition mainstreaming activities specifically community sensitization. The stakeholders in this department will be utilized in distribution of IEC Materials on water, sanitation, hygiene and nutrition which have been developed along this strategy. The IEC material should clearly demonstrate the nutritional benefits of wetland preservation like provision of fishing grounds and food cultivation. The contribution of the department directly meets the objective of the Food system of boosting Nature positive production.

3.13 Forestry Sector Support Department (FSSD)

The forestry sector support department is the policy and technical arm of the ministry of water and environment on all forestry matters. The department is mandated with forest policy formulation and planning, oversight for implementation of forestry Policies, standards and laws and resource mobilization for forest sector

The FSSD staff will be sensitized on the vulnerabilities of poor nutrition and will be utilized to cascade this information to beneficiary communities during their routine community sensitization meetings. This department will also be utilized in sensitization and training of communities in agroforestry of high value fruits which will supplement household nutrition and health. The department also suppose the food system objectives of boosting Nature positive production during tree plant which minimizes of the impact of climate change. Trees also provide fuel in rural areas.

3.14 Environment Sector Support Department

The Department promotes integration of wetland functions and benefits, goods and products in resource management and economic development decision making with regard to sector policies

and programs such as forestry, agriculture, fisheries, wildlife and sound environmental management.

In so doing, its staff interact with other ministry staff and communities. The staff will play a vital role in sensitizing communities and other relevant local government staff and CSOs on malnutrition and integration of nutrition activities into their annual plans. The staff will also be utilized for distribution of I.E.C materials on nutrition to communities during their engagement meetings.

3.15 Climate Change Department

Among its other key functions, the Climate Change Department (CCD) coordinates and guides on education, training and public awareness programmes on climate change. These education and awareness campaigns provide an opportunity for integrating nutrition relevant information and activities into the CCD annual plans.

3.16 Policy and Planning Department

The policy and planning department is responsible for improving sector performance in service delivery through sector capacity development as well as monitoring and evaluation of all sector programmes and activities. These activities provide an opportunity to ensure that nutrition activities are mainstreamed into other sector plans and budgets. It will also monitor and evaluate the implementation of the nutrition strategic activities.

3.17 Uganda National Meteorological Authority

The National Meteorological Authority has four divisions one of which is responsible for the development of training and research programmes. The activities of the research and training division provides an avenue for strategically incorporating training guidelines on nutrition as key topics to be handled during their trainings. The Authority will also guide the farmers and the nation at large on the weather patterns.

3.18 National Forestry Authority

The National Forestry Authority (NFA) is responsible for sustainable management of the Central Forest Reserves, the supply of seeds and seedlings and provision of technical support to stakeholders in the forestry subsector. Afforestation reduces the distance moved to collect

firewood easing cooking and in turn provides extra time to households to concentrate on food cultivation. Afforestation also reduces soil erosion thereby enhancing soil fertility and hence improved food production for better nutrition and health. The NFA is a vital player in this strategy as it contributes to nutrition directly in addition to community sensitization and training on nutrition strategic activities like agro forestry, collaborative forests management programmes and soil and water conservation activities.

3.19 National Environmental Management Authority

National Environmental Management Authority (NEMA) overseas the implementation of all environmental conservation programmes and activities of the relevant agencies both at National and Local government levels. Therefore, NEMA will integrate nutrition in the development and dissemination of IEC materials and guidelines for environmental management. Its staff will also be targeted for creating community awareness campaigns on nutrition during its community engagement meetings. The protection of the wetlands is critical for the marlin protein which has vital nutrients for the human body.

3.20 National Water and Sewerage Corporation

The NWSC provides water and sewerage services for large urban centres across the country. Its also noticeable that malnutrition vulnerabilities exist in these centers. Provision of safe water to urban dwellers results in improved health of the communities and reduction in water borne diseases, hence consolidating the positive effects of nutrition. The NWSC staff will be equipped with information on nutrition to enable them create awareness amongst their beneficiaries. The NWSC will also be implored to partner with sister sectors like water management zones in implementation of nutrition enhancing strategies like soil and water conservation using fruit trees to enhance nutrition of beneficiary communities. During the Nutrition awareness campaigns the staff of NWSC will also promote Urban agriculture to improve the livelihoods with in the urban community.

3.21 Local Governments

The district nutrition committees will work closely with the production and community development departments to spearhead the popularization and implementation of this strategy.

While the production department directly contributes to the implementation of this strategy by undertaking specific activities aimed at increasing food production and productivity, the community development department will further the mobilization and sensitization on consumption of specific food nutrients to balance human growth and protection against children's diseases and stuntedness.

The district authorities and the nutrition committees will make all necessary efforts to partner and sensitize the NGOs and other Civil society organizations to incorporate nutrition activities in their work plans. A combination of all these implementers will provide appropriate opportunities to create awareness on nutrition across a wide population.

3.22 Deconcentrated structures in the Water and Environment Sector

The Technical Support Units (TSUs), Water Management Zones (WMZ), Water and Sanitation Development Facilities (WSDFs)reginal forestry officers and Regional Wetland Offices are responsible for developing the capacity of districts and monitoring the implementation of MWE sector activities at that level. They also provide stakeholder advocacy, coordination and support activities. These structures will incorporate nutrition activities in their activities. Their frequent interaction with the beneficiaries of the mentioned services will provide opportunities for information dissemination through community sensitization.

3.23 Private sector

Undertake design and construction in water supply and sanitation under contract with local and central Government. Contractors, consultants, Private hand pump mechanics and scheme attendants provide services to water users in rural and peri-urban areas. Through their frequent interactions with the communities, the private sector actors will be utilized to disseminate nutrition information through distribution of nutrition I.E.C materials.

3.24 Uganda Water and Sanitation Network

The Non-governmental organizations play an outstanding role in enabling communities to access the water and environment sector services through implementation of their activities. Ministry of Water and Environment will work with the NGOs to provide technical, financial and logistical support to facilitate implementation of the MWE Nutrition strategy. Coordinated by the Ministry of Water and Environment, the NGOs will also contribute to community mobilization and capacity building activities towards the implementation of this nutrition strategy. Strategically, the Ministry of Water and Environment will popularize and disseminate this strategy to ensure that the participating NGOs incorporate nutrition into their activities. This will enable coordinated and uniform implementation and monitoring of nutrition activities. It will also help in identifying the good practices, emerging issues, challenges, gaps and document lessons learned. The NGO Network will strategically be equipped to build the capacity of member organizations in mainstreaming nutrition activities in their work plans.

3.25 The Development Partners

To partner with MWE in mainstreaming nutrition activities in its programmes by providing technical and financial support.

3.26 The Communities

The communities are the target audiences for whom this strategy is directed to. They will be crucial in implementing the core nutrition activities as guided by the different stakeholders. The community management structures for nutrition will cascade the vital elements of the strategy and monitor their implementation and progress, identify challenges and gaps and provide feedback to the local governments for further analysis and recommendations. The water and sanitation committee will have a member in charge of nutrition mainstreaming activities.

3.30 The MWE Nutrition Coordination Structure



3.31 The Nutrition coordination committee at MWE will be responsible for:

- Guiding the development of sector specific policies, regulations and standards that address nutrition specific and sensitive actions.
- Providing technical guidance for policy implementation
- Overseeing the monitoring, evaluation, accountability and learning (MEALS) of sectoral nutrition actions.
- Provide effective coordination and strengthen partnerships for sectoral nutrition actions.
- Advocating, planning, budgeting and resource mobilization for sectoral nutrition actions
- Overseeing nutrition Behavioral Change Communication (BCC) and social mobilization for nutrition.
- Supporting capacity building and strengthening for sectoral nutrition actions.

3.32 The roles of the Focal Point Officer

- To act as a coordinator for MWE nutrition activities and provide overall leadership of the departmental focal point persons in mainstreaming nutrition activities and represent MWE on matters relating to nutrition as and when necessary.
- Build the capacity of all departmental and local governments in the nutrition strategy and guide them to mainstream nutrition activities in their programmes.
- To manage and coordinate partnerships between MWE and line MDAs, Civil Society Organizations, Private Sector Agencies and other nutrition related organizations and stakeholders.
- Attend meetings organized by the office of the Prime Minister (OPM)

3.33 The roles of the Regional Nutrition Focal Point persons

- Provide overall coordination and guidance in mainstreaming nutrition activities at the regional departments
- Develop, implement and monitor nutrition work plans and budgets in their regions.
- Collect data, analyze and document it and submit regional nutrition monthly and quarterly reports

4:0 FINANCING OF THE STRATEGY

This chapter presents the financing framework of the MWE Nutrition Strategy. It provides the overall and disaggregated costs of the strategy, and the strategies for mobilizing the required financing. A Cost Implementation Matrix is a schedule that relates planned objectives, interventions and actions with estimated costs and also specifies the responsibility centre for each of the planned actions. These actions have been informed by the actions in the PIAPs.

Mainstreaming nutrition activities into the MWE sector will require that all departments plan and budget for the activities. The Ministry of Finance, Planning and Economic Development provides guidelines for all Ministries, Departments and Agencies to integrate nutrition activities in their plans and budgets. Additionally, direct donor counterpart funding will also be needed to aid integration of nutrition activities into the MWE sector plans and budgets. Financial resources mobilized by the Water and Sanitation NGO network will also be necessary in implementation of this nutrition mainstreaming strategy.

5.0 MONITORING AND EVALUATION

The MWE Nutrition Strategy recognizes the importance of tracking and evaluating the performance of nutrition relevant results within the NDPIII and the MWE Strategic Plan 2020-2025 Monitoring and Evaluation framework. The Result Framework will be used to measure and assess progress during implementation of this strategic plan at outcome and output level as detailed in Results Matrix at both outcome and output level. These outcomes and output indicators are extracted from the UNAPII M&E Plan and the NDPIII PIAPs results matrix.

The MWE Nutrition team will develop an appropriate monitoring and Evaluation and Learning matrix for monitoring all nutrition related engagements. This framework matrix will clearly spell out the outputs and their indicators against which all monitoring activities will be based through periodic data collection at all levels of activity implementation in MWE sector departments, agencies, line ministries and civil society organizations, local governments and the private sector. The MWE Nutrition Strategy Monitoring and Evaluation events will include the following.

5.1 Routine monitoring

Nutrition relevant interventions will be monitored on a routine basis through the existing monitoring procedures such as field visits, structured monthly meetings, and coordination meetings with implementing partners.

5.2 Quarterly reporting

Nutrition implementation progress will be reported on as part of MWE quarterly reports submitted through established reporting arrangements. Nutrition relevant indicators should be completed and submitted to the MWE Nutrition Coordination Committees.

5.3 Joint Annual Reviews and Annual Reporting:

Nutrition relevant indicators will be analyzed and included in the MWE annual report. Local governments will equally prepare nutrition reports on an annual basis. The annual reporting should focus on annual targets for nutrition as indicated in the MWE MEAL Matrix, as well as factors for that level of performance, challenges, lessons learned and planned actions for the next year.

5.4 Mid-term reviews reports

The mid-term reviews reports should provide information on progress, achievement of targets at mid-term, challenges and lessons learnt. The results will find into the planning and budgeting of nutrition activities.

5.5 End-of-term evaluation reports

Nutrition relevant indicators should also be planned for as part of the end-of-term evaluations for the MWE and local governments. The end-of-term evaluation is important to provide information about the achievements against 5-year targets, the reasons for that level of achievement, the lessons learnt and the recommendations for future improvements.

6:0 COMMUNICATION AND FEEDBACK ARRANGEMENTS

This nutrition mainstreaming strategy has outlined the strategies/approaches which the MWE will utilise to communicate to stakeholders on nutrition and food system initiatives. Different strategies/approaches will be used at the following levels which include National, District and Community. In addition, the mechanism of generating feedback from its various stakeholders has been described.

6.1 NATIONAL LEVEL

6.1.1 Internal Communication with MWE Staff

At MWE, the objective is to increase awareness, knowledge, understanding so as to build support for the implementation of this Nutrition Strategy by the staff. The following constitute the key principles for internal communication:

- Regular departmental meetings to encourage closer links and understanding between top management and staff through regular face to face briefings and nutrition sensitization sessions;
- Circular communication process that emphasizes consultations, debate and feedback;
- Management debriefing once every quarter in order to plan or review plans for the quarter ahead and to report progress to-date;
- Regular meetings with MWE's staff and other implementers, at least once every month to report and review progress;
- Celebrate major nutrition accomplishments of the Ministry so that all employees are reenergized and empowered with a new sense of direction and fulfilment.
- Ensure widespread availability of information through notices, e-mail communication; newsletter, website and all other channels for purposes of general information;
- Publish newsletters including books, reports and various information education communication (IEC) materials for circulation and communication with stakeholders;
- Provision of proper orientation to all new and incoming staff, and timely and clear communication to staff.

• Conduct regional meetings to review progress, identify challenges and recommendations.

6.1.2. Public Participation Mechanisms

These are provided to act as platforms for engaging stakeholders such as opinion leaders, implementers, and the general public. Decision makers in central and district local Government, the center and districts, the private sector academia, civil society, development partners, professional bodies and community and faith-based organizations have an influential role in matters of national importance. Advocacy efforts will be directed towards raising decision makers' awareness on the progress being made, the challenges being faced and the role they can play in helping accelerate the delivery of the ministry's objectives. The decision makers will be reached through specially targeted policy communication materials.

The main channel of communication for all external communication remains the media. This strategy encourages active engagement with all the major media outlets in Uganda to facilitate improved understanding of the roles and mandate of the ministry of water and environment and challenges it faces. To achieve this, the strategy encourages a proactive approach to promote positive information and campaigns in the media. The key principles of engaging with the media include the following:

- Availability of information to the media through communication officers;
- All media inquiries are directed to the Head of Communication, who will offer the professional lead for dealing with the specific inquiry.
- Head of Communication consults with the PS, the relevant directors and heads of departments in order to prepare a well-crafted and informed responses.
- Forging a sustained positive relationship with the media, especially the local media, and in particular providing clarifications after consultations.

It is very important to note and remember that media houses operate under timelines, hence the need for speed and promptness in dealing with issues.

6.1.3 Multi-Media Communication Program

Instituting branded, phased multi-media communication that ensures increased awareness, knowledge and the inspiration of stakeholders to adopt positive practices for WASH-Nutrition. A theme, logo and slogan will be developed at the beginning of the implementation of this strategy to provide a branded platform for all communication materials. This will enhance coherence of messages and create synergy across the different communication activities. The campaign will be implemented through phased but carefully linked themes beginning with national public information campaign delivered through the mass media

It is expected that the momentum for the campaign is built through a high-profile launch of the ministry's Water and Environment Week that builds up with activities from the local community and regional levels, and finally culminating at the national level. The second phase will consist of thematic communication programs focused on key behavioral areas that impact on water and environmental issues. It is probable that communication during the second phase will primarily rely on community-based media and mass media will only be used for strategic communication support during the launches

6.1.4 Media Advocacy

It is critical to promote accurate and analytical coverage of nutrition sensitive water and environmental issues by forming a strong partnership with the media. The media award scheme activities will be linked to the public information campaign to generate the necessary and the right media content early in the implementation of the strategy. The leadership awards are to be presented during the annual Water and Environment Week. This promotion will be hyped in all the mass media and platforms to draw increased excitement for public participations. The consideration will be to promote public interest in water and environmental conservation, management and good practices. Opportunities for participation of the private sector and collaborating partners (NGOs, CSOs) will be created at the national, regional and local level.

Relation with the mass media will include; Participation in radio and TV talk shows; Holding press conferences to profile MWE's activities; Ensuring that ministry's information is timely and newsworthy at all times; Encouraging staff to refrain from making statements that the Ministry would not want to be quoted on, or misunderstood; Never forget to frequently refer to, and use

the ministry's full and proper name in all its media appearances/ talk shows and in written articles; Telling the truth at all times even if it hurts the image of the Ministry.

6.1.5 Information, Education and Communication Materials

The IEC materials will be disseminated through a demand-driven network to ensure that they are distributed efficiently and used effectively to the stakeholders. It is important to note that in terms of this messaging; the benefits are mostly emphasized. It has to be recognized that the strategy can only be as good as the efforts geared towards its implementation and support it has on the ground. Therefore, promises must match actions. The positive management of the public expectations will be critical for the successful implementation of this strategy. A number of IEC materials to be developed include billboards, calendars, banners, pull-ups, branded bags, T-shirts, caps etc. These shall be procured for use as may be appropriate, especially during events and launch activities in the communities.

6.1.6 Drama Scripts for both TV and Radio

The vital thematic areas will be cascaded to both radio drama and visuals as well for greater impact in the society. It is important that the community education and public awareness (CEPA) messages are reinforced at all angles for maximum impact in the minds of the target audiences. The messages will become more appreciated by the public and hopefully start to trigger the desired actions.

6.2 DISTRICT LEVEL

The Approaches and methods above highlighted at National level shall apply at the district level too, however during the district advocacy, issues of nutrition will be elaborated to enable the policy makers at district level to plan, budget and sensitize the community on stunting and need for improved nutrition. The IEC materials shall be used to explain the problems of stunting which include poor sanitation and hygiene that cause water related diseases.

6.3 COMMUNITY LEVEL

The community shall be sensitized on the problems of Stunting in children below five years and the sensitization will target women of reproductive age. These problems include poor feeding methods, poor sanitation and hygiene and water related diseases. The IEC materials to use include dietary intake, Hand washing before and after using the toilet or breast feeding, maintaining sanitation at home for good health, Keeping drinking and food water safe, and the different ways of contamination.

7:0. RISK MANAGEMENT FOR THE MWE NUTRITION STRATEGY

The risks can be operational, strategic, and external risks. Therefore, successful execution of the MDA plan requires the identification, mitigation, and monitoring of these risks. The MDA should provide an outline of the risks; and its risk rating categorized as High (H), Medium (M) and Low (L) and propose mitigation measures and strategies which can be adopted to effectively manage the risks. The table below provides the template for risk mapping.

Table 7.1:	Risk identification,	prioritization	and mitigation p	olan
------------	-----------------------------	----------------	------------------	------

Identified risk	Risk	Likelihood	Risk impact /	Risk mitigation strategy
event	consequence	of	Consequence	
lu e de su et e	infortions and	Occurrence	11:	turner to the second
Inadequate	infections and	Medium	High	Improve current financing
financing for both	water related			and planning mechanisms to
quality and	disease			allow for installation of new
sufficient quantity	negatively			and rehabilitation of existing
of water, and to	impact on			infrastructure, to deliver both
address barriers in	nutritional status			quality and sufficient quantity
accessing water.	of the			of water, and to address
	communities			barriers of water related
				diseases.
Insufficient	Water related	Medium	High	These developments in
culturally behavior	diseases,			financial and grey
change	stunting school			infrastructure should be
communication	dropout, poor			accompanied by context-
campaigns that	agriculture			specific and culturally
improve	practices,			sensitive behavior change
knowledge and				communication campaigns
understanding of				that improve knowledge and
the importance of				understanding of the
proper WASH				importance of proper WASH
practices for				practices for nutrition and
nutrition and				health.
health.				
Inadequate	Poor planning	High	High	Additional research is needed
information on	and budgeting			to better understand WASH-
WASH–nutrition	for Nutrition			nutrition linkages, which
linkages.				would then inform these
				policies

Identified risk	Risk	Likelihood	Risk impact /	Risk mitigation strategy
event	consequence	of	Consequence	
		Occurrence		
Irrigation has not	Food insecurity	Medium	High	There is need to explore the
been given enough				approach of combining
attention for its				irrigation–WASH–nutrition
role in improving				interventions as opposed to
nutritional				standalone interventions in
outcomes.				improving nutritional
				outcomes.
No data collection,	Poor planning for	High	High	Annual data collection,
analysis and	nutrition			analysis and monitoring
monitoring				process vital for planning
processes exist				
that support the				
understanding of				
how irrigation can				
strengthen				
nutrition.				
Increasing rates of	Increased	High	High	Develop a combination of
water pollution	preventable			approaches to address water
(biological and	diarrhea, food-			pollution, including
chemical)	borne illness			regulations, economic
	and, in turn,			incentives and information
	undernutrition			dissemination. Treatment of
				wastewater is essential.
				Enforce feasible regulations
				to protect water quality.
				giving priority to addressing
				major polluters

Identified risk	Risk	Likelihood	Risk impact /	Risk mitigation strategy
event	consequence	of	Consequence	
		Occurrence		Milling and support
				widespread uptake of
				solutions in the pollution
				space requires accessible
				advisory services and training
				for farmers to adopt good
				practices.
				Support research on the
				current status of water
				quality and the spatial and
				temporal distribution
				patterns of pollutants in
				water environments to better
				understand levels and risks
				for both aquatic ecosystems,
				but also nutrition and health.
Rise of Water	Compound the	High	High	Tailor the existing measures
scarcity	risks the poor			in the policy, institutions and
	face in accessing			technology space to address
	water resources			water scarcity, variability and
	for household			competing uses focusing on
	and agricultural			local conditions to ensure
	use.			that the poorest women and
				men receive special
				consideration and that
	Reduce the			linkages to nutrition are
	capacity of water			understood, highlighted and
	bodies to dilute			addressed
	pollution hence			
	putting food			

Identified risk	Risk	Likelihood	Risk impact /	Risk mitigation strategy
event	consequence	of	Consequence	
	production at	Occurrence		
	rick			
	115K.			
	Climate change			Afforestation, deforestation,
	consequences,			restoration of wetlands
	floods,			
	landslides,			
	prolonged			
	drought			
Poor	Linkages with	High	High	Capacity building
understanding of	the nutrition			
linkages between	community			
healthy water-	poorly enhance			
related ecosystems	the positive			
to provide a series	linkages from			
of provisioning,	ecosystems to			
regulating,	nutrition			
supporting and	outcomes			
cultural ecosystem				
services, many of				
which in turn				
support nutrition				
and health				
outcomes				
Target	Poor planning	High	High	solutions need to be targeted
communities not	P			to be relevant, and whenever
included in				nossible should be co-
decision making				developed or solely
				developed of solely
				developed by IOCal

Identified risk	Risk	Likelihood	Risk impact /	Risk mitigation strategy
event	consequence	of	Consequence	
		Occurrence		
water–nutrition				communities themselves
space.				following the development of
				awareness on the linkages.
Population	An increase in	High	High	The right policies and
pressure due to the	the demand for			incentives can encourage
refuge influx	food with large			people to adopt diets that are
	environmental			more sustainable and
	footprints is			healthier and therefore
	contributing to			moderate the increase in the
	unsustainable			demand for food with large
	agricultural			water footprints. Dietary
	intensification			guidelines that account for
	and water			environmental impacts,
	quality			taxes, subsidies and
	degradation.			environmental food labelling
				may all play a role in changing
				food choices, combined with
				broader environmental
				awareness campaigns
Covid-19	The coronavirus	High	High	To improve nutrition, the
	pandemic has			district will implement
	brought to the			activities to ensure adequate
	forefront the			sensitization and awareness
	need to ensure			of the population on the
	adequate food			benefits out of good nutrition
	security and			for their health and wellbeing
	nutrition			

8.0 ANNEXES

Annex 1: Cost Implementation Matrix for Nutrition relevant Water for Production Water Supply & access, Sanitation and Hygiene under NDPIII

NDPIII Intervention: Increase access and use of water for agricultural production					
SN	Output and NDPIII Code	Action	Total cost		
Objective 1: Increase access and utilization of Nutrition Sensitive Water for Agricultural Production	01110401 23 new irrigations schemes constructed	Construct 23 new irrigation schemes of Acomai, Atari, Amagoro, Nabigaga, Rwimi,Nyimur, Musambya, Kibimba, Kabuyanda, Matanda/Enengo, Igogero, Angololo, Kagera,Namatala, Namulu, Sipi, Unyama, Lumbuye, Nyabanja, Palyec, Porongo, Lopei and Imvepi irrigation schemes constructed; complete feasibility studies and detailed for new schemes kiige, Odina, Ongom, Agwata and Atera	1,005.50		
	01110402 Five Irrigation schemes completed	Complete defect liability period for 5 schemes Doho Phase II, Mubuku Phase II, Wadelai, Tochi, Ngenge, Rwengaaju, Agoro and Olweny	52.2		
	01110401 Sustainable management institutions for effective utilization of the irrigation schemes and water for production facilities established	Establish O&M and institutional management structures for irrigation schemes and water for production facilities	4		
	01110409 Solar powered water supply and small-scale irrigation systems developed.	Construct small scale solar powered water supply irrigation systems	295.4		
--	---	---	-------		
	01110406 -purpose water development schemes including valley dams, valley tanks developed	Develop feasibility studies/ Preliminary designs and prepare detailed designs of dams; Construction of new multi-purpose water development schemes of; Kyenshama Geregere, Ojama Makokwa, Kyahi, Kakingole, Kokonyuko, Korisae Lothar, Girik, Komothing, Achorichori, Katabok, Kulodwongo, Katabok, Kaputh, Longore, Naoyamuwe, and Kokyeyo. Lemsui, Nakonyen and Nangololapolon; construct valley 23 dams; establish12 water reticulation systems.	366.7		
	01110403 Management structures for water for agriculture production developed 01110407 National Irrigation Master Plan finalized	Establish management structures for multipurpose bulk water schemes; Select, form and train water user associations Finalize the preparation of National Irrigation Master Plan	2.5		
Subtotal for WfP NDPIII Intervention: Increase access to inclusive safe water, sanitation and hygiene (WASH) with emphasis on increasing covera toilet facilities and handwashing practice					
		Construction of Piped Water Systems	3000		

	Increased access to inclusive	Construction of Solar/Wind Powered Water Supply Systems	1650
	safe water supply in rural	Construction of New Point Water Sources	880
	areas	Sub Total	5530
Objective 2: Increase		Construction of an improved water point per village	776.2
access and utilization of		Provision of communal or institutional rainwater harvesting	
Nutrition Sensitive Water,		systems	450
Sanitation and Hygiene Services		Rehabilitation of existing point water sources	555.2
		Rehabilitation, upgrade and expansion of existing Piped Water	
	Increased access to inclusive	Systems	750
	safe water supply in rural area	Sub Total	2531.4
	Grand Total for NDPIII Interven	tion	8061.4
		Social behavior change communication for construction and use of	
		improved sanitation facilities, (number of Villages): Social behavior	
		change communication for use of hand washing with water,	
	Increased access to inclusive	investment in public hand washing facilities in rural and urban areas	
	sanitation and hygiene	(number of households) (Covered above in social behavioral	
	services in rural areas	change)	5

	Faecal Sludge Management promotion in rural areas (Districts / No.	
	of villages in districts	750
	Sub Total	755
	Development of efficient and effective new technologies	4.5
	New water supply, sanitation and environment protection	
	technologies and Innovations Piloted	2.5
	Training manuals, guidelines and materials developed	0.2
	Training of community groups in new water supply, sanitation and	
	environment protection technologies and approaches	0.6
	Training of sector professionals in new water supply and sanitation	
	technologies and approaches (Districts, Regional Centres, MWE,	
	NGOs etc.)	0.6
	Innovation /Appropriate Technology Research concepts/project	
Increased Stock of	proposals written	0.05
Appropriate Technologies	Innovative/Applied research conducted and documented/	
and Innovations to Improve	published	0.05
water Supply and Sanitation	District Local Governments supported in ensuring compliance to	
Services	the Sector guidelines and standards	58

	Sub Total	66.5
	Construct new piped water supply systems using regional and integrated national approaches in Small Towns	980
	Construct/Upgrade water supply systems in large towns to increase production capacity	2,472.60
Increased access to inclusive safe water supply in urban	Rehabilitation/ Upgrade of existing water supply system in Small Towns	901
areas	Sub Total	4353.6
	To construct Faecal Sludge Management processes, transport and	
	appropriate sewerage infrastructure in Small Towns	2500
	New Faecal sludge treatment plants	25.5
	Upgrade Waste Water Treatment Plants	16.8
	Emptier trucks	13.8
	Small trucks	4.1
Increased access to inclusive sanitation and hygiene	Transfer Stations/Collection points constructed	4.4
services in	Construction of public toilet	16.7
urban areas	Expansion of the Sewerage Pipe Network	6

	Connection of new sewer customers to increase access to Sewerage	
	Services (New sewer connections	1.5
	Sub Total	2588.8
	Water supply system development/expansion targeting	324
Support to improved water	Sewerage/Waste water treatment systems	
and sanitation infrastructure	development/expansion targeting industrial parks	162
in industrial parks	Sub Total	486
	Water quality monitoring	4.05
	Catchment and water source protection measures in rural and	
Improved water quality	urban areas	105.4
supplied	Sub Total	109.45
Improved energy efficiency in	Construction of solar energy packages to improve energy efficiency	
water supply system	of existing schemes	18
Improve nutrition and food		
safety with emphasis on	Sensitize, monitor and Evaluate Water Usage and hand washing	
children aged under 5, school	practices at household level	8
	Grand Total for Intervention 122405a	8385.35

Annex 2 Summary Cost for Scaling up nutrition-sensitive Water, Sanitation, Hygiene and Environment Services at all levels of the MWE Institutional framework

Output	Total cost
1) Twenty-three new irrigations schemes constructed	1,005.50
2) Five Irrigation schemes completed	52.2
3) Sustainable management institutions for effective utilization of the irrigation schemes and water for production facilities established	4
4) Solar powered water supply and small-scale irrigation systems developed.	295.4
5) Multi-purpose water development schemes including valley dams, valley tanks developed	366.7
6) Management structures for water for agriculture production developed	2.5
7) National Irrigation Master Plan finalized	1.5
Sub Total for 7 outputs under Nutrition Sensitive Water for Agricultural Production	1,727.80
Increased access to inclusive safe water supply in rural areas	5530
Increased access to inclusive safe water supply in rural area	8061.4
Increased access to inclusive sanitation and hygiene services in rural areas	755
Increased Stock of Appropriate Technologies and Innovations to Improve water Supply and Sanitation Services	66.5
Increased access to inclusive safe water supply in urban areas	4353.6
Increased access to inclusive sanitation and hygiene services in urban areas	2588.8
Support to improved water and sanitation infrastructure in industrial parks	486
Improved energy efficiency in water supply system	18
Improve nutrition and food safety with emphasis on children aged under 5, school	8
Sub Total for Sensitive Water, Sanitation and Hygiene Services	21,867.3
Strengthen nutrition coordination and partnerships for WASH-Nutrition	0.23
Improve the policy, planning, resource mobilization, financing and tracking for WASH-Nutrition investments	5.6
Strengthen institutional and technical capacity for scaling up WASH -Nutrition Interventions	0.24
Strengthen Advocacy, Social Mobilization and Behaviour Change for WASH -Nutrition	0.98
Strengthen and institutionalize WASH-Nutrition evidence and knowledge management for effective decision making	0.77
Sub Total for Enabling environment for scaling up nutrition-sensitive Water, Sanitation, Hygiene and Environment Services	7.82

Objective	Outcome		Targets			
			2021/22	2022/23	2023/24	2024/25
To ensure availability and access to safe and clean water as well as bygienic	Increased access to safe water supply and	% of people accessing safe water supply within 1000M	70	73	76	
sanitation facilities in rural areas country-wide	sanitation facilities in rural areas	% People with access to an improved sanitation facilities in rural areas	81	81.5	82	
To provide safe water and improved sanitation facilities in Small Towns, large towns, Municipalities and the cities through MWE and NWSC	Increased access to safe water supply and sanitation facilities in Urban areas uses in the urban areas of Uganda	% of people accessing safe water supply within 200M	72	74	75	
To provide and ensure functionality of multi- purpose water for production facilities in order	Increased availability and use of built storage facilities of water for multi-purpose uses for	% of water for production facilities that are functional	88.20%	88.70%	89.20%	
to enhance production and	socio economic development, modernize	% increase in irrigable area		1.35%	1.40%	

Annex 3: Results framework for the MWE Nutrition Strategy at outcome level during UNAPII Implementation Period

productivity thereby	agriculture and mitigate
contributing to socio	the effects of climate
economic transformation as	change development,
well as mitigation of the	modernize agriculture
effects of climate change	and mitigate the effects
and disaster risks	of climate change

Annex 4: Monitoring and Evaluation Results framework for the MWE Nutrition Strategy at output level during UNAPII implementation period

Output	Indicator	Baseline value [Year]	2021/22	2022/23	2023/24	2024/25	Data Source
Piped water systems constructed in rural areas	Number of piped water supply systems constructed in rural areas	70					MWE
New piped water supply systems constructed using regional and integrated national approaches in Small Towns.	Number of new piped water supply systems using regional and integrated national approaches in Small Towns	127					MWE
Solar/wind-powered water supply systems constructed in rural areas	Number of Solar/wind-powered water supply systems constructed in rural areas	260					MWE
New point water sources constructed in rural area	Number of New point water sources constructed in rural area	10,000					MWE
Functional Rural water supply systems	% of functional rural water supply systems at the time of spot check	85 (2019/20)				95	MWE
Functional Urban water supply systems	% of functional urban water supply systems at the time of spot check	85 (2019/20)				96	MWE
Households reached with Social behavior change communication for use of hand washing with water, investment in public hand washing facilities in rural	Number of households reached with Social behavior change communication for use of hand washing with water, investment in public hand washing facilities in rural	298					MWE
Urban centres reached with social behavior change communication for use of hand washing with water, investment in public hand washing facilities	Number of Urban centres reached with Social behavior change communication for use of hand washing with water, investment in public hand washing facilities in urban areas.	218					MWE
Villages reached with Social behavior change communication for construction and use of improved sanitation facilities	Number of villages reached with social behavior change communication for construction and use of improved sanitation facilities.	298					

9.0 References

UNICEF Uganda Annual Report 2019).

The Uganda Nutrition Action plan, 2020/2021-2024/2025

Adams J, Bartram J, Chartier Y, editors (2008). Essential environmental health standards in health care. Geneva: WHO, 2015).

Bhutta ZA, Das JK, Rizvi A, Gaffey MF, Walker N, Horton S et al. (2013). Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost? Lancet. 382(9890):452–77.

Caulfield LE, de Onis M, Blössner M, Black RE (2004). Undernutrition as an underlying cause of child deaths associated with diarrhea, pneumonia, malaria, and measles. Am J Clin Nutr. 80(1):193–8

Clasen T, Roberts I, Rabie T, Schmidt W, Cairncross S (2006). Interventions to improve water quality for preventing diarrhoea. Cochrane Database Syst Rev. 3:CD004794.

Clasen T, Schmidt WP, Rabie T, Roberts I, Cairncross S (2007). Interventions to improve water quality for preventing diarrhoea: systematic review and meta-analysis. BMJ. 334(7597):782

FAO/WHO (2014). Second International Conference on Nutrition (ICN2), Rome Declaration on Nutrition and the Framework for Action. Rome: Food and Agriculture Organization of the United Nations; and Geneva: World Health Organization (http:// www.fao.org/3/a-ml542e.pdf, accessed 25 April 2015)

Improving nutrition outcomes with better water, sanitation and hygiene: practical solutions for policies and programmes (WHO, 2015)

UBOS and ICF Macro, 'Uganda Demographic and Health Survey 2016', Uganda Ministry of Finance, Planning and Economic Development, Kampala, Uganda, and Rockville, Maryland, USA, 2017.

Ministry of Water & Environment Plot 3 - 7 Kabalega Crescent Road, Luzira P.O. Box 20026 Kampala, Uganda Tel: +256 417 889 400 Email: mwe@mwe.go.ug Website: www.mwe.go.ug Ministry of Water and Environment Plot 3 - 7 Kabalega Crescent Road, Luzira P.O. Box 20026 Kampala, Uganda Tel: +256 417 889 400 Email: mwe@mwe.go.ug Website: www.mwe.go.ug