REPUBLIC OF UGANDA
MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES

NATIONAL PLAN OF ACTION

For Implementation of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (NPOA-SSF) in Uganda

August 2023

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Preparation of the plan was spearheaded by a National Task Force (NTF) of nine members comprising of one representative from each of the following: MAAIF who served as its Chair, FAO), Women Community Service Organisation, A Non-Government Organisation, Lake Management Organization, Small-Scale Fishers and Fish Workers Representative, Representative of research and academia, and a Fisheries Social Worker. It was facilitated by a consultant who served as its technical secretary.

The plan was developed through a consultative process that included Small-Scale Fishers and Fish Workers (SSFFW)[1] , scientists, managers, NGOs/CBOs, fish traders, and processors. Six stakeholder workshops were held around the five major lakes of Uganda to enable stakeholders identify the interventions to be addressed in the NPOA-SSF.

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[1] Small-scale Fishers and Fish Workers (SSFFW) refers to persons involved in a "fishing activity" defined in Section 4 of the Fisheries and Aquaculture Act 2023.

Preface

Capture fisheries contribute significantly to the national economy and livelihoods of Ugandans with fish production estimated at 625,000 tons valued at 2 trillion in 2022, placing it next to coffee in agricultural exports earnings. It provides nutritious food to 15 million people and employs 5.3 million Ugandans. All the fisheries are small-scale and all the fish is produced by Small-Scale Fishers and Fish Workers (SSFFW). However, SSFFW are not adequately involved in development and management of the fisheries resources. They are marginalized, sometimes harassed and kept out of decision-making processes. This compromises their commitment and threatens sustainability of the fisheries resources. This National Plan of Action for Securing Sustainable Small-scale Fisheries (NPOA-SSF) applies the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF-Guidelines) that the FAO developed to increase visibility and participation of SSFFW in conservation, sustainable development, and management of fisheries resources. The plan was developed in a participatory manner that involved consultation of representatives of key stakeholders around the five major lakes of Uganda to identify interventions to be implemented in NPOA-SSF and in particular by SSFFW. The plan was designed in such a manner that it addresses key development plans of Uganda including Vision 2040, NDPIII, The National Fisheries and Aquaculture Policy Strategy and Implementation Plan, the Fisheries and Aquaculture Act 2023 and to development Agendas of the EAC, AU and UN. According to the plan, SSFFW will work together with other stakeholders to secure inclusive, competitive, sustainable and profitable small-scale fisheries in Uganda. This will be achieved through: Recognizing human rights and responsibilities, organizing governance systems, managing the fish habitat health, applying lake productivity potential, sustaining and increasing fish production and utilizations, providing enabling support services, and supporting implementation, monitoring, evaluation, and sustainability. The implementation of the NPOA-SSF over a five-year period is expected to cost UGX 407 billion (US$ 110 million).

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Acronyms

ASSP	Agricultural Sector Strategic Plan
AU	African Union
AU-NEPAD	African Union - New Partnership for Africa's Development
AU-IBAR	African Union – Inter-Africa Bureau for Animal Resources
BMU	Beach Management Unit
CAS	Catch Assessment Survey
CBD	Convention on Biological Diversity
CBO	Community Based Organisation
CCRF	Code of Conduct for Responsible Fisheries
CEDAW	Convention on the Elimination of all Forms of Discrimination against Women
COFI	Committee on Fisheries
DRC	Democratic Republic of Congo
DFR	Directorate of Fisheries Resources
DWRM	Directorate of Water Resources Management
EAC	East African Community
ESIA	Environmental and Social Impact Assessment
FAO	Food and Agricultural Organisation of the United Nations
FPU	Fisheries Protection Unit
FTI	Fisheries Training Institute
GDP	Gross Domestic Product
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
IBAR	Intergovernmental Bureau for Animal Resources
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported, Unregulated Fishing
LG	Local Government
LEAFAO	Lake Edward and Albert Fisheries and Aquaculture Organization
LMO	Lake Management Organisations
LVFO	Lake Victoria Fisheries Organisation
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
MCS	Monitoring Control and Surveillance
MDA	Ministries Departments and Agencies
MoPED	Ministry of Finance, Planning and Economic Development
M&E	Monitoring and Evaluation
MWE	Ministry of Water and Environment
NAFIRRI	National Fisheries Resources Research Institute
NDPIII	National Development Plan III
NELSAP	Nile Equatorial Lakes Subsidiary Action Program
NEMA	National Environmental Management Authority
NEPAD	New Partnership for African Development
NGO	Non-Government Organisations
NPOA	National Plan of Action

NTF	National Task Force
PDM	Parish Development Model
RFMO	Regional Fisheries Management Organisation
SDG	Sustainable Development Goal
SOP	Standard Operating Procedure
SSF	Small-Scale Fisheries
SSFFW	Small-scale Fishers and Fish Workers
SPS	Small Pelagic Species
UBOS	Uganda Bureau of Statistics
UFPEA	Uganda Fish Processors and Exporters Association;
UGX	Uganda shillings
UN	United Nations
WTO	World Trade Organization

Executive Summary

Capture fisheries are very important in the Ugandan economy and contributed 625,000 tons of fish valued at UGX 2 trillion in 2022 which is next to coffee in agricultural export earnings. It provides nutritious food to 15 million and employs 5.3 million Ugandans. All fisheries in Uganda are small-scale and all the fish is produced by Small-scale Fishers and Fish Workers (SSFFW). However, SSFFW are not adequately involved in development and management of the fisheries resources. They are marginalized, sometimes harassed and kept out of decision-making processes. This compromises their commitment and threatens sustainability of the fisheries resources.

The Uganda national plan of action for securing sustainable small-scale fisheries (NPOA-SSF) applies Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF-Guidelines) developed by the FAO and other international instruments to increase visibility and participation of SSFFW in conservation and development of fisheries resources. The plan was developed through consultation of stakeholders around the five major lakes of Uganda to identify interventions to be implemented. It is designed in such a manner that it addresses capture fisheries aspects of key development plans of Uganda including Vision 2040, NDPIII, The National Fisheries and Aquaculture Policy Strategy and Implementation Plan, and The Fisheries and Aquaculture Act 2023.

The NPOA-SSF will enable SSFFW to work with other stakeholders to secure inclusive, competitive, sustainable and profitable small-scale fisheries by identifying and implementing interventions to address human rights principles and thematic areas derived from SSF-Guidelines namely: (1) Recognizing human rights and responsibilities, (2) Organizing governance systems, (3) Promoting socio-economic development, (4) Managing the fish habitat health, (5) Applying lake productivity potential, (6) Sustaining and increasing fish production, (7) Providing enabling support services, and (8) Supporting implementation, monitoring, evaluation, and sustainability.

1. Human rights and responsibilities will be recognized by upholding human rights principles namely: Human rights and dignity; Respect for culture; Non-discrimination; Gender equality; Equity and equality; Consultation and participation; Rule of law; Transparency; Accountability; Economic, social, environmental and resource sustainability; Holistic and integrated approaches; Social responsibility, and; Social and economic viability.

2. Governance systems will be organized through: Organizing tenure; Organizing stakeholders; Promoting cultural norms; Establishing co-management, and; Promoting associations.

3. Socio-economic development will be promoted through: Poverty reduction; Improving socio-economic services; Addressing common diseases among fishers especially HIV/AIDs, bilharzia, and malaria; Promoting gender balance, and; Integrating blue economy investments.

4. The fish habitat health will be managed through: Managing impacts of land use change; Managing pollutants and contaminants, and; Controlling invasive weeds.

5. Lake productivity potential will be applied through: Applying knowledge of physical, chemical and biological conditions and food-webs; Promoting culture-based fisheries; Promoting diversification to aquaculture; Addressing impacts of climate variability and change, and; Conserving aquatic biodiversity.

6. Fish production will be sustained and increased through: Sustaining and increasing production of individual lakes through management of major commercial species in these lakes especially Small pelagic species, Mputa, Ngege, Male, Mamba, Semutundu, Kisinja, and Ngasia. The factors that affect production will be addressed including: Regulating fishing capacity; Combating Illegal, Unregulated and Unreported (IUU) fishing; Reducing post-harvest losses, value addition and utilization, and; Improving market systems.

7. Enabling support services will be provided including: Information, awareness and skills; Appropriate policies, laws and regulations; and Capacity building (Infrastructure, Institutions, Human resources, and Funding).

8. Support will be provided towards: Implementation, Monitoring and evaluation, and Sustainability of NPOA-SSF.

The investment to implement the NPOA-SSF over a five-year period is estimated at UGX 407 billion (US$ 110 million) and is expected to come from the national budget and development partners.

1.0 | Background and rationale

1.1 Importance of small-scale fisheries in the Ugandan economy

All fisheries in Uganda are small scale fisheries (SSF) and all capture fisheries is produced by small scale fishers and fish workers (SSFFW). This provides nutritious fish to an estimated 15 million Ugandans, employ 3.2 million people, 60% women (MAAIF, 2018) and in 2022 produced 625,000 tons of fish valued at UGX 2 trillion. Fish contributes 3% to the national GDP, 12% to the agricultural GDP and is second to coffee in agricultural exports from Uganda. Uganda produced the highest quantity of inland capture fisheries in Africa and is fifth overall in the world (FAO, 2022). Uganda plans to increase fish production to 1,700,000 tons, of which at least 700,000 tons are expected to come from capture fisheries. This is possible because over 20% of Uganda's surfaces area is covered by water comprising of five major lakes and about 160 small lakes, rivers and dams which can be harnessed to produce fish. This will, however, require commitment and involvement of all stakeholders especially SSFFW who form the majority of the producers to achieve sustainable, responsible fisheries.

The fisheries in Uganda have historically been constrained by many factors. These mainly include: Inadequate organisation of the sub-sector, Poor socio-economic conditions of fishers; Degradation of the fish habitat; Biodiversity loss, Declining capture fisheries production, Lack of management plans for most production systems and species, Slow aquaculture growth; High post-harvest losses, Limited market information, Inadequate awareness and skills, Inadequate policies and regulations, Inadequate capacity, Inefficient implementation, monitoring, evaluation systems, and; Limited sustainability of programs. However, to address these constraints effectively there is need for SSFFW who are the primary resource users to play an active role in planning, developing and managing of the fisheries resources.

Various instruments have been developed at global, continental, regional and national levels to guide the sustainable development of fisheries resources. The one that specifically provides for recognizing the important role of SSFFW in the sustainable development and effective management of fisheries are the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF-Guidelines) which were developed by FAO in a participatory manner and endorsed for implementation by the FAO Committee on Fisheries, COFI, in 2014 (FAO, 2015).

1.2 Rationale and requirements of SSF-Guidelines

Small-scale fisheries employ 90% of the SSFFW in capture fisheries worldwide, 60% of whom are women and produce 40% of the fish landed worldwide (FAO, 2022) and should therefore play a leading role in their management. Virtually all inland fisheries of Africa, including Uganda, are small-scale. Despite forming the majority of the producers, SSFFW are not adequately involved in the conservations, sustainable development and management of fisheries resources. This, in most cases, is dominated by a top-down command-and-control system of government agencies. The rights of SSFFW have sometimes been abused. They have been ignored, discriminated, harassed, treated as criminals, marginalised, eliminated from decision-making processes, and have limited access to social services such as health, education, water and sanitation. This has made them to remain multi-dimensionally poor with limited access to key socio-economic services such as education, health, water and sanitation, electricity, housing, assets, productive employment, and financial services (UBOS, 2022). In Uganda, multidimensional poverty which includes SSFFW was, in 2019/20, estimated at 42.1% and was even as high as 85% in some parts of the country. This can, in the case of SSFFW be reduced if they are recognized, organised. empowered put at the forefront to sustainably develop fisheries resources which form the basis of their livelihood.

1.3 Purpose of the NPOA-SSF

This National Plan of Action for Sustainable Small-Scale Fisheries (NPOA-SSF) provides modalities for increasing visibility and empowering SSFFW to work with other stakeholders to secure small-scale fisheries to achieve human rights, food security, and poverty eradication through the implementation of SSF-Guidelines. It has been designed in such a manner that it contributes to capture fisheries aspects of key development plans of Uganda including Vision 2040, National Development Plan III (NDPIII), The Uganda National Fisheries and Aquaculture Policy Strategy and Action Plan (MAAIF, 2018), a; The Fisheries and Aquaculture Act 2023 (Republic of Uganda, 2023); those of the UN (UN, 2015), AU (AU, 2015), and EAC (EAC, 1999, 2003).

The NPOA-SSF will, in addition, contribute to achieving sustainable development goals in Uganda especially the targets under SDG14 of conservation and sustainable use of marine resources namely: Reducing pollution (14.1); Protecting and restoring ecosystems (14.2); Sustainable fishing (14.4); Conserving coastal areas (14.5); Reducing overcapacity (14.6); Increasing economic benefits from the sustainable use of marine resources (15.7); Increasing scientific knowledge (14.8); Supporting small scale fishers (14.b) by more specifically increasing access of small-scale fishers to marine resources and markets; and enforcing laws and regulations (14.10). Effective implementation of the targets will contribute to ten out of the seventeen SDGs: 1 - No poverty; 2 - Zero hunger; 3 - Good health and well-being; 4 - Quality education; 5 - Gender equality, 6 - Clean water and sanitation; 8 - Decent work and economic growth; 13 - Climate action, and; 17 - Partnerships (UN, 2015).

1.4 Objectives of SSF-Guidelines

The overall objective of SSF-Guidelines is to provide modalities on how SSFFW can work together with other stakeholders to secure sustainable small-scale fisheries to achieve food security and poverty eradication through the following specific objectives:

a) Governance of tenure of fish production systems;
b) Participatory development and management of fisheries resources;
c) Improvement in socio-economic conditions and livelihoods;
d) Management of the fish habitat and fisheries;
e) Provision of enabling supportive services, and;
f) Supporting implementation, monitoring, evaluation, and sustainability.

1.5 Requirement of SSF-Guidelines

Achieving the objectives of SSF-Guidelines require:

a) Upholding thirteen human rights principles, and;
b) Addressing two strategic areas with ten thematic areas in SSF-Guidelines.

1.6 Human rights principles

SSF-Guidelines require upholding thirteen human rights principles namely:

a) Human rights and dignity;
b) Respect for cultures;
c) Non-discrimination;
d) Gender equality;
e) Equity and equality;
f) Consultation and participation;
g) Rule of law;
h) Transparency;
i) Accountability;
j) Economic, social, environmental and resource sustainability;
k) Holistic and integrated approaches;
l) Social responsibility, and;
m) Social and economic viability.

1.7 Strategic and thematic areas of SSF-Guidelines

SSF-Guidelines require addressing the following two strategic areas with ten thematic to secure small-scale fisheries:

1. Responsible fisheries and sustainable development:

a) Responsible governance of tenure;
b) Social development, employment, and decent work;
c) Sustainable resource management;
d) Value chains, post-harvest, and trade;
e) Gender equality, and;
f) Disaster risks and climate change.

2. Ensuring an enabling environment and supporting implementation:

a) Policy coherence, institutional coordination, and collaboration;
b) Information, research, and communication;
c) Capacity (institutional, infrastructure, human resources, and funding), and;
d) Supporting implementation, monitoring, evaluation and sustainability.

2.0 | Process of developing the NPOA-SSF

2.1 Key steps in development of the NPOA-SSF

Development of the NPOA-SSF involved:

a) Formation of a National Task Force;
b) Defining strategic and thematic areas to be addressed;
c) Determining stakeholders to be consulted;
d) Preparing a working draft of the NPOA-SSF through desk literature review covering the thematic areas identified to guide stakeholder consultations;
e) Conducting stakeholder consultations through workshops attended by stakeholder from the districts bordering each of the five major lakes;
f) Presenting the Final Draft NPOA-SSF to the Competent Authority (MAAIF/DFR), and;
g) Conducting a validation workshop.

2.1.1 Formation of the National Task Force (NTF)

The National Task Forces (NTF) consisted of nine members with a representative from each of the following: Small-Scale Fishers and Fish Workers (SSFFW) who are the primary stakeholders; The Ministry of Agriculture Animal Industry and Fisheries (MAAIF) who served as its Chair, The Food and Agricultural Organisation of the United Nations (FAO), Women Community Service Organisations, Non-Government Organisations; Lake Management Organizations; Researcher / academia; Fisheries Social Workers, and; a consultant who served as secretary.

2.1.2 Defining strategic and thematic areas

Human rights principles in SSF-Guidelines in section 1.6 were treated as a strategic area with each of the thirteen principles acting as a thematic area. The two strategic areas in the SSF-Guidelines listed in section 1.7 were aligned with those in international fisheries instruments into seven strategic areas namely: Organizing governance systems; Promoting socio-economic development; Managing the fish habitat health; Applying lake productivity potential; Sustaining and increasing fish production and utilization; Providing enabling support services, and; Supporting implementation, monitoring and evaluation. The thematic areas in SSF-Guidelines were enriched and aligned with those from global, continental, regional and national instruments including: The Code of Conduct for Responsible Fisheries (FAO, 1995.); Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa (AUC-NEPAD, 2014; AU-AIBAR 2019); The EAC Fisheries and Aquaculture Policy (LVFO, 2018); The National Fisheries and Aquaculture Policy Implementation Strategy and Action Plan (MAAIF, 2018) to produce a more comprehensive list of thematic areas each of which were assigned to one of the strategic areas. This generated eight strategic areas with a total of forty three thematic areas *(Table 2).*

Table 1 Consolidated list of strategic and thematic areas

Strategic and thematic areas	Strategic and thematic areas
I. Recognizing human rights and responsibilities	**IV. Managing the fish habitat health**
1.1. Human rights and dignity	4.1. Managing impacts of land use change
1.2. Respect culture	4.2. Managing pollutants and contaminants
1.3. Non-discrimination	4.3. Controlling invasive weeds
1.4. Gender equality	**V. Applying lake productivity potential**
1.5. Equity and equality	5.1. Applying physical, chemical and biological conditions and food webs
1.6. Consultation and participation	5.2. Promoting culture-based fisheries
1.7. Rule of law	5.3. Promoting diversification to aquaculture especially cage culture
1.8. Transparency	5.4. Addressing impacts of climate variability and change
1.9. Accountability	5.5. Conserving aquatic biodiversity
1.10. Economic, social, environmental and resource sustainability	**VI. Sustaining and increasing fish production and utilization**
1.11. Holistic and integrated approaches	6.1. Sustaining and increasing fish production of individual lakes
1.12. Social responsibility	6.2. Sustaining and increasing production of individual commercial species (Small pelagic species-SPS, Mputa, Ngege and Others)
1.13. Social and economic viability	6.3. Regulating fishing capacity
II. Organising governance systems	6.4. Combating Illegal, Unregulated and Unreported (IUU) fishing
2.1. Organizing tenure	6.5. Reducing post-harvest fish losses, adding value and utilization
2.2. Organizing stakeholders	6.6. Improving trade and market systems
2.3. Promoting cultural norms	**VII. Providing enabling support services**
2.4. Establishing co-management	7.1. Providing information, knowledge and skills
2.5. Promoting associations	7.2. Providing appropriate policies, laws and regulations
III. Promoting socio-economic development	7.3. Providing adequate capacity (infrastructure, institutions, human, funding)
3.1. Poverty reduction	**VIII. Supporting implementation, monitoring, and evaluation**
3.2. Improving socio-economic services	8.1. Establishing implementation mechanisms
3.3. Addressing HIV/AIDs, bilharzia, malaria, and other diseases	8.2. Establishing a monitoring and evaluation system
3.4. Promoting gender equality	8.3. Providing for sustainability
3.5. Integrating blue economy investments	

Figure 1. Sessions of stakeholder consultations (a) the Task Force meeting the day before the stakeholder consultative workshop, (b) Working group discussions during the workshop, and (c), Working group presentations during the plenary. Photographs by the NTF.

2.1.3 The stakeholders consulted

The stakeholders who participated in identification of interventions addressed in the NPOA -SSF included the following: SSFFW, scientists, managers, NGOs/CBOs, traders/processors. The number of stakeholders who participated in the six stakeholder workshops that were conducted for riparian districts of lakes Victoria, Kyoga, Albert, and Edward/George, is summarised in *Table 1.*

There were more District fisheries officers to represent the needs of SSFFW.

Table 2 The stakeholders consulted around the five major fish production systems between December 2022 and June 2023

Lake system	Fishers	Scientists	Managers	NGOs /CBOs	Traders/ Processor	Females	Males
Victoria (Eastern region)	5 (11.4)	6 (13.6)	19 (43.2)	3 (6.8)	11 (25.0)	17 (44.7)	21 (55.3)
Victoria (Western region)	6 (15.8)	3 (7.9)	18 (47.4)	2 (5.2)	9 (23.7)	16 (45.8)	19 (54.2)
Kyoga (Northern region)	17 (24%)	12 (16%)	31 (43.7%)	6 (8.5%)	5 (7.0%)	15 (24.6%)	46 (75.4%)
Kyoga (Southern region)	5 (14.7%)	5 (14.7%)	15 (44.1%)	7 (20.6%)	2 (5.9%)	8 (26.7%)	22 (73.3%)
Albert	5 (14.3)	3 (8.6)	11 (31.4)	3 (8.6)	13 (37.1)	11 (31.4)	24 (68.6)
Edward/George	10 (25.6%)	3 (8.0%)	17 (43.6%)	4 (10.3%)	5 (12.8%)	11 (28.2%)	28 (71.8%)
Total	**43 (16.8)**	**32 (12.5)**	**111 (43.4)**	**25 (9.8)**	**45 (17.8)**	**78 (32.8)**	**160 (67.2)**

2.1.4 Stakeholder workshops

Each stakeholder workshop lasted two days. On the first day, the NTF met to review progress and plan for the stakeholder workshop. The stakeholder workshop took place on the second day. During each workshop a presentation was made to introduce the participants to SSF-Guidelines and some provisions of the thematic areas from the literature review. The participants then broke up into working groups of about six stakeholders each to identify intervention to be addressed in the NPOA-SSF. This involved examining the status of each thematic area to identify issues and interventions. Generating information for each thematic area was guided by the following questions:

a) What is the status of the thematic area?
b) What is the key issue(s) that need to be addressed?
c) What is the key intervention(s) that should be undertaken to address the issues?

Each intervention identified was ranked as H = High (must be done), M = Medium (should be done), and L = Low (may be done). The information generated was compiled in matrix as in the table below and presented to the plenary and was progressively used after each workshop to improve drafts up to the Draft Final NPOA-SSF.

Table 3 Matrix for recording the issues and interventions, and their ranking

Theme	Issue (s)	Intervention(s)	Ranking
Tenure	Lack of tenure over different lakes	Form Lake Management Organizations (LMOs)	H

2.2 Conceptual framework

Securing small-scale to achieve human rights, food security, poverty eradication, and human will be built on the following eight strategic areas *(Figure 1)* which were translated into strategic objectives of the plan namely:

a) Recognizing the human rights;
b) Organizing governance systems;
c) Promoting socio-economic development;
d) Managing the fish habitat health;
e) Applying lake productivity potential;
f) Sustaining and increasing fish production and utilization;
g) Proving enabling support services, and;
h) Supporting implementation, monitoring, and evaluation.

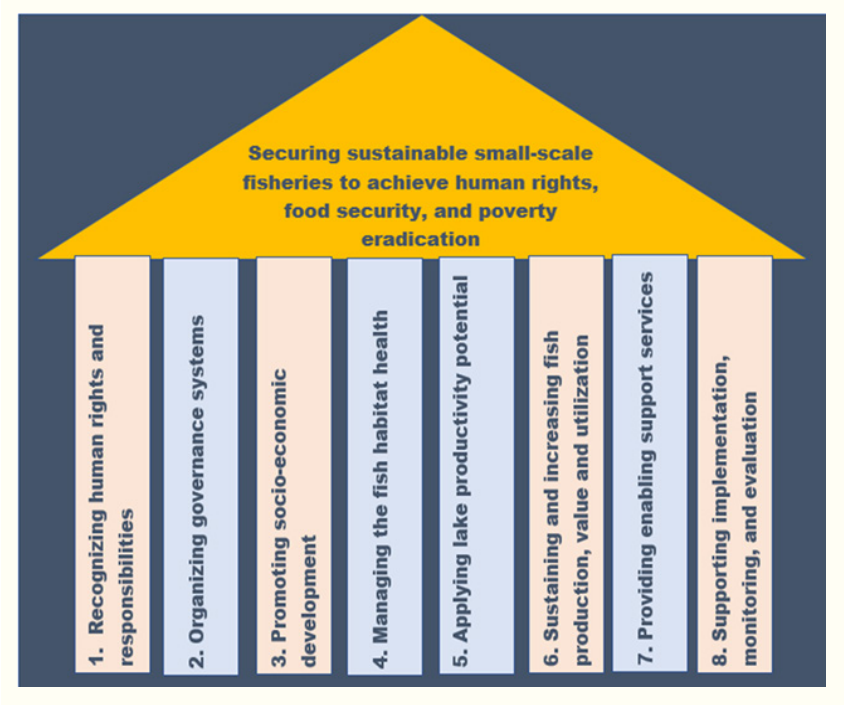

Figure 2 The eight strategic areas addressed in the NPOA-SSF

2.3 Vision, goal, mission and objectives

The vision, mission, goal, and objective of the NPOA-SSF were, on the basis of the provisions of SSF-Guidelines, the strategic and thematic areas identified defined as follows:

Vision

Inclusive, competitive, sustainable and profitable small-scale fisheries.

Mission:

Small-scale fishers recognized, organized, promoted, enabled, and supported to apply internationally acceptable best practices to secure sustainable development of small-scale fisheries.

Goal:

Small-scale fishers empowered to secure small-scale fisheries through best fishery and ecosystem management practices to achieve human rights, food security, and poverty eradication.

Strategic objectives:

a) Recognize human rights and responsibilities;
b) Organize governance systems;
c) Promote socio-economic development;
d) Manage the fish habitat health;
e) Apply lake productivity potential;
f) Sustain and increase fish production, and utilization;
g) Provide enabling support services, and;
h) Support implementation, monitoring, and evaluation.

3.0 | Identification of interventions

The interventions that were identified for implementation in the NPOA-SSF for each thematic area under the eight strategic objectives are summarised this section. They represent the actions that SSFFW and other stakeholders will undertake to secure sustainable small-scale fisheries to achieve human rights, food security and poverty eradication.

3.1 Strategic objective I: Recognizing human rights and responsibilities

Human rights and responsibilities will be fulfilled through addressing the following principles:

a) *Human rights and dignity;*
b) *Respect of culture;*
c) *Non-discrimination;*
d) *Gender equality;*
e) *Equity and equality;*
f) *Consultation and participation;*
g) *Rule of law;*
h) *Transparency;*
i) *Accountability;*
j) *Economic, social and environmental resource sustainability;*
k) *Holistic and integrated approaches;*
l) *Social responsibility, and;*
m) *Social and economic viability.*

3.1.1. Human rights and dignity

There are human rights abuses of SSFFW including harassment, extortions, bribes, brutal arrest, torture, imprisonment, confiscation and resale of gear and fish by law enforcement agencies.

a) ***This will be addressed by promoting the rule of law and putting in place measures to identify and punish those who abuse human rights.***

3.1.2. Respect of culture

There were cultural norms of fishers such as governance system of Gabungas and management systems but these have diminished and are no longer recognized and applied.

a) ***Traditional norms and practices, of fishing communities such as the governance system of Gabungas and traditional management systems will be identified and appropriate ones promoted.***

3.1.3. No discrimination

There is discrimination especially of less advantaged groups in accessing fisheries based on influence and economic ability.

a) ***Standard operation procedures (SOPs) that eliminate discrimination in fisheries and empowers the vulnerable will be developed and applied.***

3.1.4. Gender equality

There are socio-cultural factors that make it difficult for women and men to participate equally in all fisheries activities. This has led to areas such as fishing being dominated by men and fish processing and marketing by women.

a) ***Gender equality will be promoted by considering gender in all interventions of the NPOA-SSF and balancing support in areas where men and women have comparative advantage.***

3.1.5. Equity and equality

There is un-proportional acquisition and allocation of rights such as licenses to wealthier and more influential actors.

a) ***SOPs that provide for equity and rationalize access to fisheries by all stakeholders especially local communities and the vulnerable will be developed and applied.***

3.1.7. Rule of law

There is inadequate awareness and sometimes mis-interpretation of laws and regulations, persistence of obsolete laws, selective application of laws and regulations, and application of laws which do not exists.

a) ***Awareness of laws and regulations will be increased, obsolete laws reviewed and improved, and only existing laws applied equally to all stakeholders.***

3.1.8. Transparency

There is inadequate transparency among stakeholders in processes and procedures

a) ***All processes and procedures affecting SSFFW will be undertaken in an inclusive and transparent manner.***

3.1.9. Accountability

There is limited accountability by the different players

a) ***Stakeholders will be held accountable for their actions according to existing policies, laws and regulations.***

3.1.10. Economic, social, environment, and resource sustainability

There is degeneration in social, economic, environmental, and resources sustainability.

a) ***The NPOA-SSF will implemented in a manner that promotes social, economic, environmental and resources sustainability.***

3.1.11 Holistic and integrated approaches

There is inadequate consideration of all components of the ecosystem in development of fisheries resources.

a) ***All relevant components of the ecosystem will be considered in development and management of fisheries resources in line with the ecosystem approach to fisheries and the blue economy strategy and action plan.***

3.1.12. Social responsibility

There is inadequate social responsibility in development and management of fisheries

a) ***The needs of all stakeholders will be considered in development and management of fisheries resources.***

3.1.13. Social and economic viability

There is inadequate consideration of social, economic, environmental, and resource viability in development of fisheries resources.

a) ***Social, economic, and environmental viability of the fisheries resources with be considered in their exploitation.***

3.2 Strategic objective II: Organizing governance systems

Governance systems will be organized through:

a) ***Organizing tenure;***
b) ***Organizing stakeholders;***
c) ***Promoting cultural norms;***
d) ***Establishing co-management, and;***
e) ***Promoting associations.***

3.2.1 Organising tenure

Uganda has five major lakes Albert, Edward, George, Kyoga, and Victoria *(Figure 1)* and about 160 minor lakes each of which should be managed as a unit. Most of the large lakes are transboundary. Lakes Albert and Edward are shared between Uganda and the Democratic Republic of the Congo, (DRC) while Lake Victoria is shared between Kenya, Uganda and Tanzania. Management of the lakes within Uganda falls under the central government, local governments of districts, and lower levels of governance. There is a regional fisheries management organisation (RFMO), the Lake Victoria Fisheries Organisation (LVFO, 2016), which coordinates harmonisation of management measures between the countries sharing Lake Victoria and its basins and a Lake Edward and Lake Albert Fisheries and Aquaculture Organization (LEAFAO) (Republic of Uganda, 2018) that harmonizes measures for sustainable use of the resources of Lakes Edward and Albert but none for those shared by districts. There are challenges of ownership of land for landing sites although the 200m of land of the lake shore and river banks is designated by law and protected as public land and the landing sites are located within this zone but much of this land is owned by private individuals. The Local Government Act (1995b) provides for districts to cooperate in management of a common resources. The Fisheries and Aquaculture Act 2023 provides for the establishment and regulation of LMOs. Each of the lakes together with their support infrastructure such as landing sites, will, in the context of the NPOA-SSF, constitute tenure system under LMOs.

a) ***Guidelines for establishment of Lake Management Organisations (LMOs) will be developed with participations of SSFFW;***
b) ***A LMO will be formed on each lake to coordinate management of the lakes by districts sharing a lake in collaboration of SSFFW, and;***
c) ***Modalities will be developed for acquiring land for landing site infrastructure.***

Figure 3 The major small-scale fisheries production systems of Uganda.

Lake Albert is shared between seven districts (Packwach-1, Nwoya-2, Buliisa-3, Hoima-4, Kikuube-5, Kagadi-6, and Ntoroko-7); The Kyoga lakes are shared between eighteen districts (Apac-1, Kwania-2, Amolatar-3, Dokolo-4, Kaberamaido-5, Kalaki-6, Soroti-7, Serere-8, Ngora-8, Katakwi-10, Kumi-11, Palisa-12, Ngora-13, Kaliro-14, Buyende-15, Kamuli – 16, Kayunga-17, and Nakasongala-18); Lake Victoria is shared between fifteen districts (Kyotera-1, Masaka-2, Kalungu-3, Mpigi-4, Wakiso-5, Kampala-6, Mukono-7, Buikwe-8, Jinja-9, Mayuge-10, Bugiri-11, Namayingo-12, Busia-13, Buvuma-14, and Kalangala-15); Lake Edward is shared between three districts (Kasese-1, Rubirizi-3, Rukungiri-4, and Kanungu-5); Lake George is shared between three districts (Kasese-1, Kitagwenda-2, and Rubirizi-3), and; Lake Wamala between three districts (Kasanda-1, Mityana-2, and Gomba-3).

3.2.2 Organising stakeholders

There are public and private sector stakeholders involved in development and management of the fish habitat and fisheries with supporting policies and regulations. The main ones being: Directorate of Fisheries Resources (DFR) for fisheries (Republic of Uganda, 2023), Directorate of Water Resources Management (DWRM) for water (Republic of Uganda, 1997), and The National Environment Management Authority (NEMA) for environment (Republic of Uganda, 2019) with local governments (LG) being responsible for implementation of management measures at district level (Republic of Uganda, 1995b). Other Ministries such as those responsible for education, health, and gender are responsible for providing related social services to SSFFW. There are other stakeholder categories involved in the thematic areas addressed in the NPOA-SSF including the following: SSFFW's organizations, Women and youth organizations, Input suppliers; Fish processors, exporters and traders, NGOs and CBOs, Law enforcement agencies, Research and academic institutions, Training institutions, Social service providers (education, health, water and sanitation), Media houses, Politicians, and Development partners. These stakeholders are however, not properly identified, organized, linked, and engaged to work as a team in development and management of fisheries resources.

a) ***A database of stakeholders including SSFFW and their roles in fisheries will be created;***
b) ***The stakeholders will be mobilized and invited to participate in NPOA-SSF in their respective roles, and networked from landing site to the national level to increase their voice.***

3.2.3 Promoting cultural norms

Fisheries historically had cultural norms that were important in management, conservation and sustainable use of fisheries resources. Each landing site had a highly respected traditional leader known as the Gabunga. Through these traditional arrangements, there were management measures such as closed seasons and areas, size of fish to be caught and sacred places. These cultural norms have diminished and are no longer applied. On one of H.E. The President visit to Kalangala island in May 2023, he directed that the fishers should organize themselves with guidance of elders to solve problems that were raised to him. This requires identification and involvement of elders to play the role previously played by Gabungas and to identify traditional and valuable cultural norms that are beneficial in development and management of fisheries resources.

a) ***Local elders will be identified and involved in management of landing sites and networked to higher levels of a system of elders, and;***
b) ***Beneficial cultural norms will be identified and promoted.***

3.2.4 Establishing a co-management system

A co-management system previously existed as legally empowered Beach Management Units (BMUs) (Republic of Uganda, 2003) which provided for the participation of different stakeholders including SSFFW in conservation and sustainable development of fisheries resources. They were disbanded in 2015 and replaced by landing committees as the primary unit of fisheries management but these have not been organised and linked to different levels of governance as was the case for BMUs and guidelines for their formation and operation have not been developed. Co-management is provided for in the Fisheries and Aquaculture Act 2023 including the linkages from the landing site to national and even regional levels. The BMU system had well-defined structures from village to national and even regional levels which can be improved to develop the co-management system.

a) ***Guidelines for establishment of a co-management system will be prepared with active involvement of SSFFW to ensure that their interests are provided for, and;***
b) ***An inclusive co-management system will be formed and operationalized at different levels of governance.***

3.2.5 Promoting associations

Associations provide for collective action and voice in addressing common problems such as accessing services social services, inputs, monitoring and managing resources, markets, credit, and development programs. For instance, the Uganda Fish Processors and Exporters Association UFPEA has provided a common voice for fish processors and exporters of Nile perch which has even been involved in enforcing the slot size of Nile perch. The Constitution of the Republic of Uganda provides for the formation of associations (Republic of Uganda, 1995a). There is, however, an overall lack of associations among SSFFW along the value chain and in the thematic areas targeted in the NPOA-SSF and the few that exist are localised and not organised and networked to increased their voice.

a) ***Key categories of SSFFW along the value chain will be organized and supported to form associations, and***
b) ***The specific categories of associations will be networked through different levels of governance up to the national level to provide for a stronger voice.***

3.3 Strategic objective III: Promoting socio-economic development

Socio-economic development will be promoted through measures to:

a) ***Reduce poverty;***
b) ***Improve socio-economic services;***
c) ***Address common diseases among fishers especially HIV/AIDs, bilharzia and malaria;***
d) ***Promote gender balance, and;***
e) ***Integrate blue economy investments.***

3.3.1 Poverty reduction

The average multidimensional poverty in Uganda is very high and cuts across sectors. It was, as of 2022, estimated at an average of 42.1% and as high as 85% in some parts of the country (UBOS, 2022) despite the government target to reduce poverty rates to 14.2% under NDPIII by 2025 (Republic of Uganda 2020). Poverty profiles differ among SSFFW with some categories like labourers being in the worst poverty category and needing specific attention (Odongkara, 2005). This is partly due to dependency on fisheries as a sole source of livelihood, limited capacity in business skills, and poor saving culture. Poverty contributes to long-term detriments for households including luring children in fishing and promoting child labor and sexual exploitation which can reinforce inter-generational poverty cycles.

a) ***SSFFW will be mobilized to participate in development programs, including social protection, such as PDM;***
b) ***Alternative livelihood options will be identified and promoted, and;***
c) ***SSFFW will be trained business skills, savings and financial management.***

3.3.2 Improving socio-economic services

The SSFFW are normally located in remote rural areas with limited socio-economic services such as schools, health facilities, water and sanitation, roads, banks, and credit facilities. Access to these services is a human right that is recognized internationally and is provided for in national legal instruments. Most socio-economic services are, however, under different MDA such as works, health, education, water and sanitation, and energy, which are outside the mandate of fisheries and SSFFW can only access alongside other citizens. There are also fishery related social economic services such as fish landing and fish handling facilities that need improvement for effective operation of fisheries activities.

a) *A need assessment of priority socio-economic requirements of SSFFW will be undertaken and presented to government agencies and development partners for consideration in their development plans;*
b) *SSFFW will be mobilized to access socio-economic services of direct importance to fisheries through self-support systems.*
c) *SSFFW will be registered into social and fisheries registries to gather socio-economic and sex-aggregated data and their access to socio-economic services such as social protection programs*
d) *Inter-institutional working groups will be set up to address socio-economic matters, including access to socio-economic services, in the small-scale fisheries sector.*

3.3.3 Addressing common diseases among fishers - HIV/AIDs, bilharzia and malaria

Fishing communities are disproportionately affected by HIV/AIDS, bilharzia, malaria and other water related diseases due to their location in high risk areas (LVFO, 2007a). For instance, the prevalence of HIV/AIDs among fishing communities in Uganda is 22-37% which is 3-5 time above national average (Musumari et al., 2021) and that of bilharzia is 25.6% and fishers are most exposed (Exum et al., 2019). Some of these diseases especially HIV/AIDs and bilharzia can stay in the body undetected until advanced lethal stages. There is therefore need for targeted awareness, testing, and provision of treatment for SSFFW who are highly vulnerable.

a) *Established SSFFW institutions under LMO and co-management systems will work with institutions responsible for health to increase awareness and advocate for testing and treatment against HIV/AIDS, bilharzia, malaria other common water related diseases among fishers.*

3.3.4 Promoting gender equality

Promoting gender equality is a guiding principle of the SSF-Guidelines that strongly encourages the provision of equal opportunities to men and women in development and has been endorsed at global (UN, 1979, FAO 2017), continental (AU 2009), regional (EAC, 2018) and national (Republic of Uganda, 2007) levels and is one of the SDGs. Women and youths are important in the sustainable development of fisheries and women constitute up to 60% of SSFFW at the global and national level. The FAO (2017) has proposed that gender-equitable development in small-scale fisheries governance and development should be promoted through inclusion of gender in all fisheries programs. Uganda has a gender policy (Republic of Uganda, 2007) that obliges MDAs to translate the policy into sector specific strategies and action plans and this is provided for in the Fisheries and Aquaculture Policy Strategy Implementation Plan (MAAIF, 2017, 2018). However, there are socio-cultural factors that make it difficult for women and men to participate equally in all fisheries activities. This has led to areas like fishing being dominated by men and fish processing and marketing by women.

a) *Gender will be considered in all interventions of the NPOA-SSF, and;*
b) *Gender balance will be promoted through balancing support in areas where men and women have comparative advantage.*

3.3.5 Integrating blue economy investments

Blue economy is a strategy that advocates for addressing water related economic investments such as fisheries, shipping, water transport, trade, ports, maritime security, shoreline developments, tourism, water-based energy and mineral resources together in development (AU-IBAR, 2019). Blue economy investments such as the oil development in the Albertine Rift and the construction of dams along rivers have positive and negative impacts on ecosystems and small-scale fisheries and livelihoods of SSFFW. Occupational hazards such as maritime accidents and piracy are common on aquatic systems and cut across blue economy investments and are estimated to lead to a loss of about 3000 lives annually on Ugandan lakes mostly of SSFFW.

a) *Spatial planning of blue economy investments will be promoted;*
b) *Opportunities and threats of blue economy investments on SSFFW will be assessed and those requiring ESIA obliged to undertake and monitor it;*
c) *Blue economy investors will be encouraged to provide socio-economic services that benefit SSFFW, and;*
d) *Joint action will be promoted in addressing issues that cut across blue economy investments such as maritime safety and security.*

3.4 Strategic area IV: Managing the fish habitat health

The fish habitat health will be managed through:

a) *Managing impacts of land use change;*
b) *Managing pollutants, and;*
c) *Controlling invasive weeds;*

3.4.1 Managing impacts of land use change

There is increased degradation of the fish habitat due to agriculture, deforestation, degradation of wetlands and nearshore areas of aquatic systems. This exposes water bodied to sedimentation and pollutants. Uganda has The National Environment Act, 2019 (Republic of Uganda, 2019) with provisions to protect the fish habitat health including wetlands, river banks and lake shores but there is inadequate sensitization, compliance, and commitment to enforcement of the regulations.

a) *Information on the status of land use changes will be evaluated and measures to improve it put in place including increasing awareness, compliance, and enforcement of environmental regulations in collaboration with NEMA.*
b) *Lake shores and river banks will be protected including afforestation*

3.4.2 Managing pollutants

Pollutants including inorganic heavy metals, organic pollutants, chlorinated hydrocarbons, and plastics are increasing but their consequences on the health of aquatic ecosystems systems and the consumers of aquatic products is not adequately appreciated.

a) Information on the types, sources and impacts of pollutants on different aquatic systems will be assessed, their implications on the health of aquatic systems and users of aquatic products assessed and interventions recommended.
b) SSFFW will be mobilized to manage pollutants especially plastics

3.4.3 Controlling invasive weed

Invasive aquatic weeds especially water hyacinth, *Eichhornia crassipes* and Kariba, *Salvinia molesta* have invaded most Ugandan lakes (Musinguzi et al 2022). These weeds affect livelihoods of SSFFW, fisheries, water transport, hydropower generation, and provide suitable habitats for intermediate hosts of vectors of water borne diseases. The weeds can be controlled using natural enemies and through mechanical and physical removal.

a) Occurrence and distribution of aquatic weeds will be assessed and monitored and control measures involving SSFFW implemented.
b) Fishers will be sensitized to remove the weeds on their fishing trips

3.5 Strategic objective V: Applying lake productivity potential

Applying lake productivity potential will be achieved through:
a) Applying knowledge of physical, chemical and biological conditions and food-webs;
b) Promoting culture-based fisheries;
c) Promoting diversification to aquaculture
d) Addressing impacts of climate variability and change, and;
e) Conserving aquatic biodiversity.

3.5.1 Applying knowledge of physical, chemical and biological conditions and food-webs

Changes in physical factors especially oxygen and production nutrients especially phosphorus and nitrogen affects algal, invertebrate productivity and physiology of fishes and have been associated with changes in fish production and fish kills. For instance, the drastic increases in fish production in Lake Kyoga in the mid 1970s (Ogutu-Ohwayo et al 2013) followed increases in water level, submergence and decay of aquatic macrophytes which increased nutrient levels of the lake. Similar changes occurred in Lake Wamala during the same period. Similarly, the dramatic increase in fish production in Lake Victoria after the 1980s coincided with increases in concentration of phosphorus (Hecky et al, 2010) associated with changes in climatic factors which altered mixing dynamics and affected the productivity of the lake. Knowledge of the relationship between lake productivity processes and fish production can be applied to predict the capacity of a water body to produce fish and to explain mass fish kills but is not normally considered in fisheries management.

a) Information on the relationship between lake productivity processes and fish production will be mobilized, shared, and applied where necessary;
b) Ecosystem models on the relationship between fish production of individual lakes will be prepared.

3.5.2 Promoting culture-based fisheries

Uganda has many water bodies especially minor lakes and dams scattered in different parts of the country. Many of these water bodies have sparse or no fish populations. These water bodies can be harnessed to produced fish. This requires assessment of individual water bodies on the status of their stocks and their suitability and capability to produce fish but there is inadequate knowledge of the capacity of individual water bodies to support fish populations.

a) *Capability and suitability of selected water bodies to produce fish will be assessed, and;*
b) *Selected capable and suitable water bodies will be stocked with fish to be managed by local communities.*

3.5.3 Promoting diversification to aquaculture

Capture fisheries are expected to reach their limit with increases in human population evidenced by the trends in fish catches and the decrease in the number of commercial species (Figure 5). This will displace many SSFFW from capture fisheries many of whom may be landless. Uganda plans to increase fish production from the current level to about 1.7 million tons annually and this is expected to be achieved through enhancement in aquaculture production (MAAIF, 2018). Aquaculture production in Uganda increased from 820 to 118,000 tons between 2000 and 2016. This has mainly been through farming the lakes using cages. This, if correctly planned and promoted, could contribute to an increase in fish production and reduce pressure on capture fisheries and keep SSFFW in fisheries. Some SSFFW including women and youths have started to diversify to aquaculture especially cage aquaculture. They are, however, constrained by high investment costs and require incentives through support with inputs such as seed, feed and technical advice and training in farm management and operations.

a) *SSFFW endeavoring to diversify specially to cage culture will be supported with inputs such as construction materials, seed, feed, and technical services, training and capacity building.*

3.5.4 Addressing impacts of climate variability and change

Climate variability and change have intensified since the 1970s and is altering nutrient circulation, lake productivity processes, and fish production. Changes in fish production such as the increase in the relative abundance of small pelagic species (SPS) in aquatic systems around the world have been attributed to climate change (FAO, 2010). This seems to be responsible for the increases in abundance of SPS in some Ugandan lakes especially Victoria, Kyoga, and Albert since the 1970s. Besides, climate variability and change contributes to floods and drought, alters lake levels, affects riparian communities and infrastructure, and causes calamities within and outside water bodies. These changes affect livelihoods and require identifying and putting in place appropriate adaptation and mitigation measures (UN, 1992). Information on the impacts of climate variability and change on inland fisheries of Africa and adaptation and mitigation measures is starting to accumulate (Ogutu-Ohwayo et al 2016). There is, however, limited awareness, and response plans to the impacts of climate variability and change, and; Limited adaptation and mitigation measures to enable affected communities to adapt to sustain their livelihoods.

a) *Information on the impacts of climate variability and change on fish production and livelihoods will be mobilized and shared;*
b) *Location specific adaptation and mitigation measures that provide for the needs of SSFFW will be identified and promoted;*
c) *Calamities associated with climate change such as floods will be identified and remedial measures put in place in collaboration with lead agencies.*

3.5.5 Conserving aquatic biodiversity

Ecosystem and species diversity which support fish production have and continue to decline which is threatening fish production and livelihoods. Many commercially important fishes have been lost. The number of dominant fish species in commercial catches on Ugandan lakes has decreased from >15 in the 1950s to only three since the 1980s. Stocks of originally important commercial species such as the native tilapias of Lakes Victoria and Kyoga, the riverine species such as the Ningu, larger commercial species of Lake Albert such as Distichodus spp and Citherinus spp, and over ~200 haplochromines species of Lakes Victoria and Kyoga have either disappeared or are at the verge of extinction. Critical habitats that support fish production such as wetlands and riverine habitats are being destroyed and lost. Securing small-scale fisheries will require identifying and conserving the fishes that form the basis of production and protecting the habitats in which fish is produced. The international community has through the CBD (UN, 1992) committed itself to the conservation of biological diversity and sustainable use of its components. Uganda has national regulations to address the CBD (Republic of Uganda, 2019) and is one of the few African countries with a fisheries biodiversity database (https://freshwaterbiodiversity.go.ug) and a red list status of fish species but this has not been translated into policy and action. Aquatic biodiversity conservation areas have not been identified and set up and a system for their management established.

a) ***Suitable areas for aquatic biodiversity conservation will be identified and set up in collaborations with local communities to be managed by the communities within the LMO / co-management systems that will be established under the NPOA-SSF.***

3.6 Strategic objective VI: Sustaining and increasing fish production and utilization

Sustaining and increasing fish production and utilization will be achieved through supporting the LMO and co-management systems to:

a) ***Sustain and increase production of individual lakes;***
b) ***Manage production of individual major commercial species in each lake, and;***
c) ***Manage the factors that affect production, value and utilization of fish and fishery products.***

3.6.1 Sustaining and increasing fish production of individual lakes

Total fish production from Uganda increased from about 60,000 tons in 1960 to 625,000 tons in 2022. This has been due to increase catches in individual lakes during different periods *(Figures 4 and 5)* and can decrease if not well managed. The first major increase was due to Lake Kyoga, where catches increased from 26,000 tons in 1967 to a peak of 167,000 tons in 1977/78 which then decreased and oscillated at an average of 40,000 tons after 2012. As the Lake Kyoga catches decreased, those of Lake Victoria increased first from 44,000 tons in 1984 to about 120,000 in 1992 mainly due to increase in catches of Mputa and oscillated around 100,000 tons between 1990 and 1999 before increasing again between 2000 and 2003 and oscillating around 250,000 tons up to 2022 due to increases in catches of SPS. The overall increase in catches after 2004 was sustained by increases in fish catches of Lake Albert from 56,000 in 2004 tons to 348,000 in 2022 mainly due to increased in SPS. The catches from Lakes Edward/George have remained at an average of 7,000 and Lake Wamala at 5,000 tons and can be assumed to have stabilised and should be managed around these values. Optimal levels of fish production from individual major lakes of Uganda are not well known and will therefore have to be determined and managed appropriately within the LMO/co-management system to sustain production during implementation of NPOA-SSF.

a) ***Trends in catches of individual lakes will be examined, optimal levels of production of individual lakes estimated and applied by respective LMOs.***

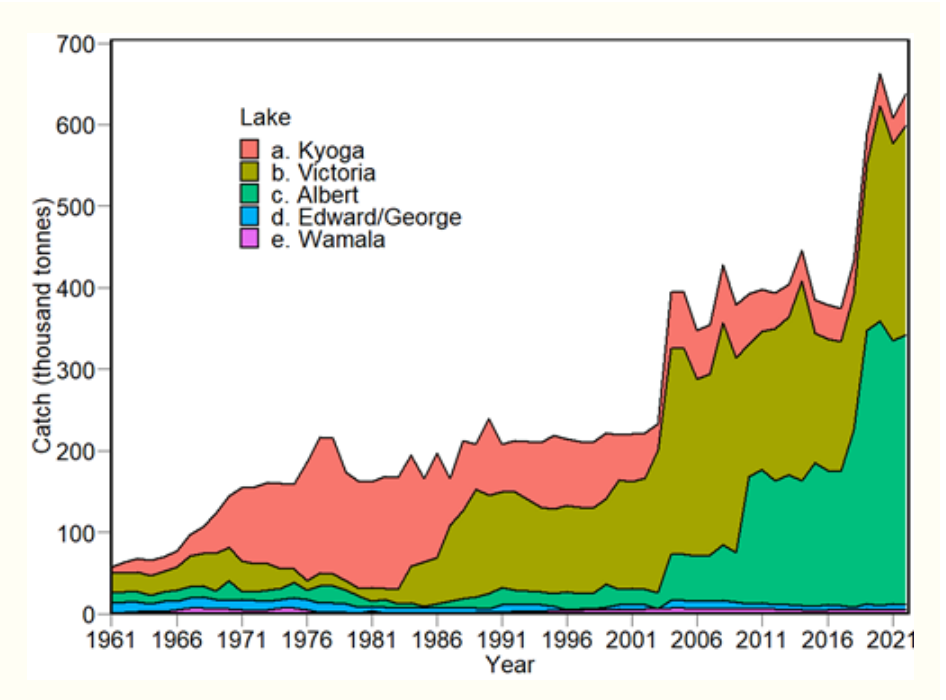

Figure 4 Contribution of major water bodies to commercial fish catches in Uganda between 1961 and 2022

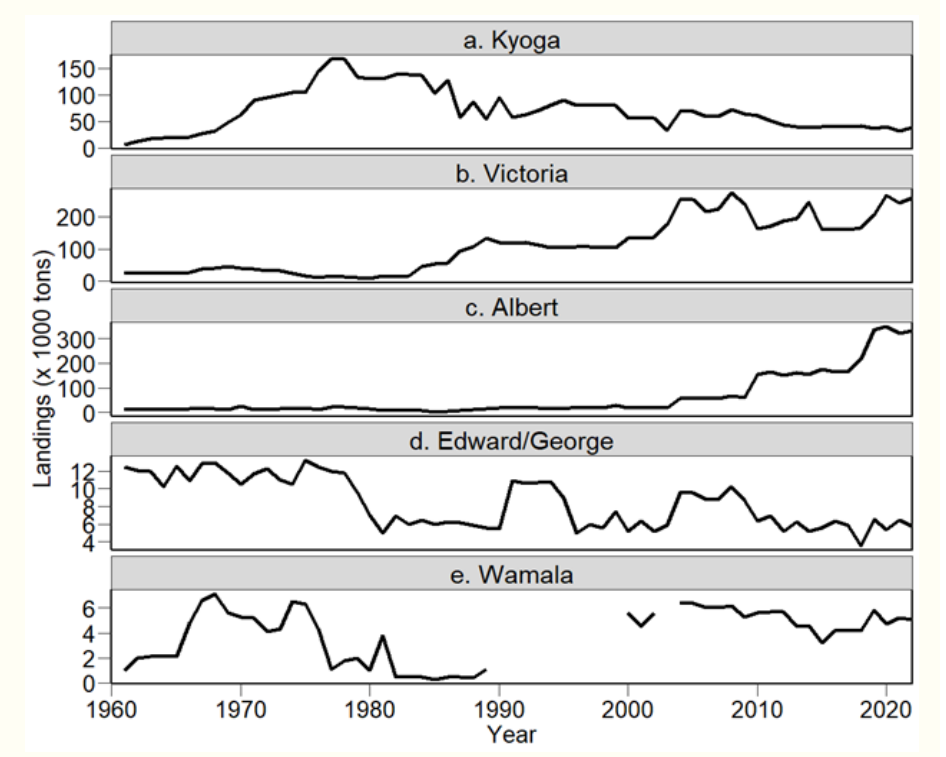

Figure 5 Changes in commercial catches of major fish production systems in Uganda 1961-2022 (Data from DFR, Uganda)

3.6.2 Sustaining and increasing production of individual commercial species

Fish production of individual lakes is determined by that of individual fish species in these lakes. During a ten-year period (2012-2021), the species that contributed most to commercial catches nationwide were: Small pelagic species SPS (Mukene, Muziri and Ragoze) – 57.1%, Mputa – 18.5%, Ngege (mainly *Oreochromis niloticus*) - 11.1%, Angara - 2.5%, Mamba - 2%, Semutundu - 1.8%, Male - 1.6%, Ngasia – 1.2%, Kisinja – 0.7% and the rest - 3.5%. The contribution of these species to fish catches varies between the lakes *(Table 4).*

Table 4. Percentage contribution of individual fish taxa to commercial catches from major lakes based on the most up-to-date catch assessment survey (CAS) data for each lake. [LVFO (2016, 2017, 2022), NAFIRRI (2012, 2015), NELSAP (2019, 2021)]

Scientific Name	Victoria (2021)	Kyoga (2014)	Albert (2019)	Edward / George (2019)	Wamala (2012)
Mukene (Rastrineobola argentea)	62	14			
Muziri (Mesobola bredoi)			36		
Ragoogi (Brycinus nurse)			20		
Mputa (Lates spp)	15	19	10		
Ngege (Oreochromis niloticus)	3	53	4	14	24
Nkejje (Haplochromines)	4	1			
Mamba (Protopterus aethiopicus)	`	8	1	28	30
Semutundu (Bagrus sp)			4	26	
Male (Clarias sp)		3	2	15	46
Ngasia (Hydrocynus sp)			5		
Angara (Alestes sp.)			4		
Kisinja (Barbus sp)			3	12	
Nkolongo (Synodontis sp)			4	1.6	
Kasulu (Mormyrus sp)				4	
Other species	16	2	3		
Total (tons)	1,484,000	43,500	335,000	6,600	1,200

Sustaining production of individual lakes will be achieved through managing production of individual species that contribute most to commercial catches in each lake. There is, however inadequate information on optimal levels of production of individual fish species in the different lakes.

a) Information and data on individual fish species will be generated and applied to prepare species-specific management plans for individual lakes

Using Lake Victoria as an example (Figure 6), total fish catches over the whole lake had remained below 100,000 tons before 1980 but increased to 755,000 tons in 1990 mainly due to increase in Mputa whose catches after increasing oscillated at a mean value of 250,000 tons annually. The increase in fish catches in Lake Victoria since 1990 have mainly been through increases in catches of Mukene who catches have increased continuously up to 2021. The catches of Ngege initially increased and then decreased while those of Nkejje and other species which had collapsed to almost zero between 1980 and 2000 has started to increase. Therefore, there should be species-specific management plans.

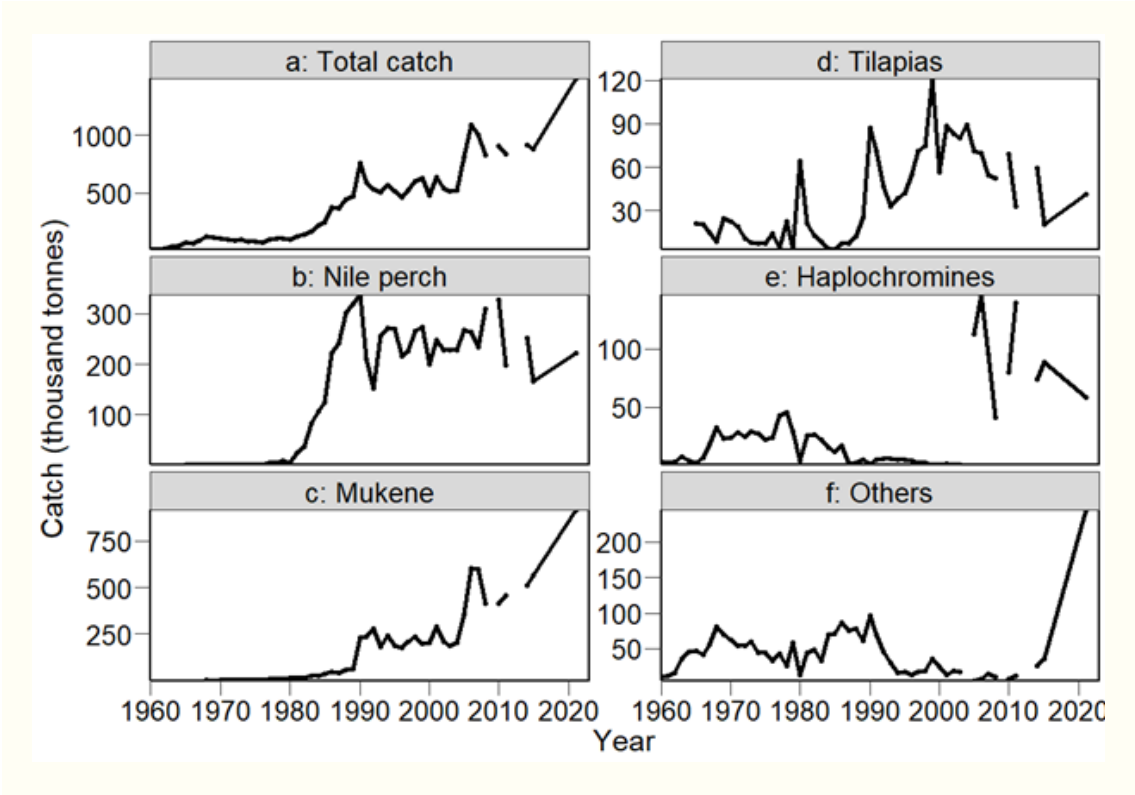

Figure 6. Trends in commercial catches of major commercial species in Lake Victoria between 1960 and 2020

Increasing and sustaining fish production of individual lakes will be achieved through:

a) ***Preparing species-specific management plans for individual commercially important fish species.***
b) ***Preparing management plans for the factors that affect fish production (Fishing capacity, IUU Fishing, Post-harvest losses).***
c) ***Preparing lake-specific management plans.***

3.6.2.1 Managing the fishery of small pelagic species (SPS)

The small pelagic species, SPS (Mukene, Muziri, and Ragoogi), which are locally known as Mukene in Uganda, contributed most (57.1%) by weight to commercial catches in Uganda over the recent ten years (2012-2021) and their catches have continued to increase. They are only found in lakes Victoria, Albert and the Kyoga system and contributed to the increases in catches in Lake Victoria after 1990, Lake Kyoga since the 1990s, and Lake Albert since 2004 *(Figures 4, 5 and 6)*. They are the only taxa whose catches have consistently increased since the 1980s *(Figure 6)*. They are consumed locally and regionally and are highly nutritious with high levels of protein, vitamins, and micronutrients that are essential for healthy living. They are cheap and affordable by the poor and are the most common fish in rural markets. They are processed through sun drying which is environmentally friendly. Their processing and marketing are dominated by women which contributes to gender balance. They are marketed regionally but the trade is largely informal which does not maximize the benefits that can be derived from them.

SPS are harvested using fine mosquito nets of 3~8mm which can capture juveniles and affect the recruitment of large sized species. About 25-40% of SPS landed is lost through poor handling and only 20-30% goes to direct human food and the rest to animal feeds (Damien Legros & Joseph Luomba. 2011) which deprives the poor of a cheap source of nutritious food. A number of post harvest technologies for processing and improvement of products of SPS have been developed but are not widely disseminated and adapted.

Fishing for SPS is regulated through a minimum mesh size of 10mm for Lake Victoria and 8mm for Lakes Albert and Kyoga and restricting fishing to beyond 2km from the shoreline (Republic of Uganda, 2010). However, the legal mesh sizes are no longer applicable. For instance, 99.5% of the nets used to catch SPS in Lake Albert (NELSAP, 2021) and 95% in Lake Victoria (LVFO, 2017, 2022a, b) were <8mm. There has also been controversy on the number of net panels that should be used on different lakes.

a) ***Trends in production of SPS will be determined to guide licensing;***
b) ***Appropriate gear sizes and net panels will be determined for different lakes and the gear size regulation reviewed;***
c) ***Training in post-harvest handing will be conducted to improve skills and products;***
d) ***Post-harvest handling and marketing infrastructure will be improved;***
e) ***The population will be sensitized to increase awareness of nutritional value; and***
f) ***Information on optimal markets will be mobilized and shared.***

3.6.2.2 Managing the Mputa fishery

Mputa is the most valuable export fish commodity from Uganda. Elaborate quality assurance systems and markets for Mputa have been developed and are available. The quantity of Mputa landed from lakes Kyoga and Victoria first increased dramatically following establishment of the species in these lakes but later decreased and remained at a lower level *(Figure 6)*. Consequently, Mputa exports from Uganda initially increased from 5,000 to 35,000 tons annually between 1990 and 2005 but later fell to 12,000 tons by 2017 due to the decrease in catches. Similarly, export value increased from US$ 5 million in 1991 to 143 million in 2005 but fell to 86 million by 2010 and only increased after 2014 mainly due to the export of highly valuable Mputa maws (the swim bladder) but the export of fish maws is not regulated. By-products from Mputa processing need improvement for consumption.

Harvesting Mputa is regulated through a minimum size at harvest of 50 cm, minimum gill net mesh size of 7 inches, hooks sizes of 9, and prohibiting use of illegal fishing gears and methods (Republic of Uganda, 2002, 2010).

a) *Trends in production in different lakes will be determined to guide licensing;*
b) *Minimum size at harvest of 50 cm will be enforced;*
c) *Established efforts in post-harvest handling and marketing will be sustained;*
d) *Quality of Mputa by products will be improved for local consumption, and;*
e) *The export of fish maws will be regulated.*

3.6.2.3 Managing the Ngege fishery

Ngege is the most preferred food fish in Uganda and much of what is harvested is consumed locally. It is widely distributed in virtually all water bodies in Uganda and was introduced into many water bodies where it was originally absent including lakes Victoria, Kyoga, Wamala and many minor lakes where it established profitable fisheries. It is also the species mostly used in aquaculture. Ngege is normally restricted to shallow lakes and inshore areas of deep lake, and is abundant in lakes Kyoga, George and Wamala *(Table 4)*. The stocks of Ngege are declining in almost all the lakes. The species breeds in sandy nearshore areas and nurses its young in shallow vegetated nearshore areas. Unfortunately, these areas are exposed to environmental degradation and fishing malpractices.

The fishery of Ngege are regulated through a minimum size at harvest of 28 cm (11 inches) TL (Republic of Uganda, 2002, 2010) and the minimum size of gill nets of 102-127mm (4-5 inches) depending on the lake. However, because of its preference for shallow water habitats, it is exposed to illegal types of gears including beach seines, monofilament nets, cast nets, and beating water.

a) *Optimal levels of harvest will be determined to control licenses;*
b) *Minimum size at harvest of 28 cm and fishing malpractices will be enforced, and:*
c) *Critical nearshore breeding and nursery areas will be protected.*

3.6.2.4 Managing the fishery of other commercially fish important species

Other fish taxa such as Angara Mamba, Semutundu, Male, Ngasia, Kisinja and Nkejje are commercially important in major lakes including Albert, Edward, George, Wamala *(Table 4)* and minor lakes. These species do not have specific regulations for their management but benefit from compliance with gear type and size regulations. Some like Mamba and Male are wetland species and their stocks would benefit from conservation of these habitats.

a) *Precautionary approaches involving avoiding catching of immature individuals will be applied;*
b) *Critical habitats especially wetlands will be protected, and;*
c) *Sizes at first maturity of individual species will be determined and appropriate regulations developed.*

3.6.3 Regulating fishing capacity

The fisheries of Uganda are open access. Fishing capacity is controlled only through licencing but the suitable number of licenses that should be issued on each lake is not known and there is no regulation to control fishing capacity on individual lakes. Consequently, the fishing capacity has continued to increase with increasing human populations even when catches decline which threatens the sustainability of the fish stocks *(Table 5).* There are international (FAO 2008) and regional (LVFO, 2007b) plans of action for controlling fishing capacity that guide the control of fishing capacity. There is however no information on the appropriate fishing capacity for each lake and fish species in each lake.

a) *The appropriate number of boats and nets per boat will be determined and a regulation to control capacity on each lake developed;*
b) *The appropriate number of boats and nets per boat on each lake will be licensed, and;*
c) *A digital system and database will be developed for registration and monitoring of fishing capacity*

Table 5. The changes in fishing capacity (number of boats on major lakes in Uganda)

Lake	Number of boats and year				
Victoria	15,544 (2000)	16,775 (2004)	23,446 (2008)	27,971 (2012)	30,390 (2016)
Kyoga	4,045 (1991)	6,501 (1997)	6,462 (2002)	8,405 (2008)	10,882 (2013)
Albert		5,764 (2007)	6,216 (2012)	8,672 (2016)	9,781(2018)
Edward		19		299 (2018)	320 (2021)
Wamala	450 (1965)	53	4	614 (2012)	

3.6.4 Combating Illegal, Unregulated and Unreported (IUU) fishing

Illegal, Unregulated and Unreported (IUU) fishing especially the use of illegal fishing gear and methods, un-licensed fishing operations, and capture of immature fish have persisted on Ugandan lakes as demonstrated by the number of illegal gear on Lake Victoria *(Table 6)*. This has been the main focus of enforcement which has mainly been top-down by government agencies with no involvement of SSFFW and is currently spearheaded by an armed Fisheries Protection Force FPU of military personnel. This has ended up in a cat-and-mouse game. Although the use of force has, in some cases reduced illegalities, it is not sustainable, does not address the rights of fishermen, and has been abused by enforcement agencies which has put them in conflict and led to suffering and exploitation of SSFFW. This has eroded commitment of SSFFW to promoting sustainable exploitation of the fish stocks. Section 13 of The Fisheries and Aquaculture Act 2023 provides for the establishment of a fisheries Monitoring, Control and Surveillance (MCS) Unit to enforce compliance with the provisions of the Act within a co-management set up. The International (FAO 2001) and regional (LVFO 2004) plans of action for combating IUU recommend that MCS should be participatory and involve all stakeholders.

a) *The appropriate number of boats and nets per boat will be determined with involvement of the specific LMO and a regulation to control capacity on each lake developed;*
b) *The appropriate number of boats and nets per boat on each lake will be licensed, and;*
c) *A digital system and database will be developed for registration and monitoring of fishing capacity*

Table 6. The number of illegal fishing gear on the Ugandan side of Lake Victoria between 2004 and 2016

Year	Gillnets < 5 inches	seines <5 mm	Hooks >10	Monofilament nets	Beach/boat seines	Cast nets
2004	56,246	867		845	954	659
2006	66,577	1,467	604,561	1,563	1,425	631
2008	76,908	1,785	1,106,341	11,203	1,649	1,000
2010	66,532	2,446	1,169,807	12,115	1,451	1,095
2012	59,585	3,107	2,892,575	15,148	1,233	1,372
2014	53,708	5,631	3,737,273	21,793	1,819	1,359
2016	51,703	5,685	3,998,352	31,876	1,968	1,342

3.6.5 Reducing post-harvest fish losses, adding value and utilization

Fish is a highly perishable commodity due to high level of unsaturated fats, large amounts of non-protein nitrogen compounds, less connective tissue, and high intercellular moisture levels. A number of technologies to reduce spoilage and improve handling and processing have been developed but have not been widely disseminated and adopted. Consequently, different types of loses (physical, quality, nutritional, and economic) have persisted. Most of the loss is due to physical and quality loss which culminates into a financial loss. A study of the Mukene fishery (Masette pers com) indicated that the physical loss was 4.2% during the low harvest and 7.9% during the high harvest season with financial losses estimated at UGX 42,000 and UGX 64,000 respectively per ton. The quality loss was 22% and 61% during low and high seasons, with very high financial losses estimated at UGX 520,000 and UGX 1,867,000 per ton during low and high seasons respectively. The available fish quality management facilities and enforcement in Uganda mainly target Mputa for exports but SPS which form the bulk (57.1%) of fish catches have limited fish quality management infrastructure, are poorly handled and processed, quality standards are hardly enforced, and lack trade and market information. There are international (WTO, 2013), regional (EAC, 2013), and national (Republic of Ugandan 2011) sanitary and phytosanitary instruments and Uganda has Fish quality assurance rules (Republic of Uganda 2008). However, enforcement of the Fish (Quality Assurance) Rules have mainly targeted the Mputa export industry. Some guidelines for handling SPS have been developed but have not been harmonized and implemented due to lack of infrastructure, skills and awareness creation. Several products of SPS have also been developed but have not been up scaled.

a) Post-harvest fisheries technologies for SPS will be reviewed and up-scaled;
b) Post-harvest infrastructure for SPS will be provided; and;
c) Existing Fish Quality Assurance rules will be enforced in respect of SPS

3.6.6 Improving trade and market systems

Fish is one of the most traded commodities in Uganda. Mputa is traded to international markets including the EU, Middle East, South East Asia, the USA and their export value chain is well documented. SPS are traded locally and regionally (DRC, Sudan, Rwanda, Burundi, Kenya, Zimbabwe and South Africa) with Tilapia and other species consumed locally. Market channels and infrastructure for Mputa are well known and developed except for fish maws. However, market channels and infrastructure for SPS which currently form the bulk of the fish landed are not well defined and developed to enable traders to optimise benefits from their trade.

a) Information on profitable markets will be mobilised and shared. and;
b) Appropriate markets especially for SPS will be developed while ensuring that it does not negatively impact local consumption.

3.7 Strategic objective VII: Providing enabling supportive services

Enabling support services to be provided will include:
a) Information, knowledge and skills;
b) Appropriate policies, laws, regulations, and guidelines;
c) Capacity
  i. Infrastructure;
  ii Institautions;
  iii. Human resources, and;
  iv. Funding.

3.7.1 Providing information, knowledge and skills

Information will be required to improve knowledge and skills of different players. There are areas where the required information is inadequate and will need to be collected. Some of the required information is available in research institutions but needs to be mobilized, packaged and disseminated. The SSFFW will need to collect some of the information they require themselves. There is need to identify places from which information can be accessed and to establish systems for sharing information.

a) Information will be generated and status reports on fisheries, environment and sex-aggregated socio- economic factors for each lake prepared and shared;
b) SSFFW will be trained to collect management information using systems such the e-CAS;
c) Information will be packaged and disseminated in popular versions and local languages;
d) Centers of excellence for information access will be identified and used;
e) Online systems for accessing information will be established;
f) Fora for sharing information through platforms like WhatsApp and fisheries radio/TV programs will be established for specific communities, and;
g) Workshops and training will be conducted to improve knowledge and skills.

3.7.2 Providing appropriate policies, laws and regulations

Uganda has legal instruments to guide management of the fish habitat and fisheries under fisheries, environment and water and has enacted the Fisheries and Aquaculture Act 2023. There are policies and legal instruments that have been developed at global, continental, and regional levels to which Uganda is a signatory which can be customized and applied to guide sustainable development of fisheries resources in Uganda in areas where regulations may be lacking or inadequate at national level to address the thematic areas in the NPOA-SSF. Examples of these have are summarized in Annex III. There is, however, limited awareness of the laws and regulations. Some of the regulations are obsolete and need improvement and there are high priority areas such as SPS, post-harvest and trade, and LMOs that lack supporting regulations.

a) SSFFW will be sensitized on the Fisheries and Aquaculture Act 2023 and related regulations;
b) An extensive review of the fisheries policy, regulations, and guidelines will be undertaken to identify gaps in legal instruments;
c) Obsolete regulations will be identified, reviewed and improved, and;
d) Legal instruments will be developed in high priority areas such as SPS, post-harvest, trade and LMOs in consultation with SSFFW to ensure their interests are covered

3.7.3 Providing capacity

The capacity to be provided will be:

a) Institutional;
b) Infrastructure and inputs;
c) Human resources, and;
d) Funding

3.7.3.1 Providing institutional capacity

The Competent Authority in development and management of fisheries resources in Uganda is the Directorate of Fisheries Resources (DFR) in the Ministry of Agriculture Animal Industry and Fisheries (MAAIF). Management of shared lakes is under local government and will in the context of NPOA-SSF be through lake management organizations whose lowest management unit is the fish landing. There are NGOs and CBOs involved in development and management of fisheries resources. These institutions are

not well linked, the roles at different levels not well defined, and the capacity not adequate to address the interventions identified in the NPOA-SSF.

a) *Existing public and private sector institution will be mobilized and strengthened, and networked to implement NPOA-SSF;*
b) *An elaborate institutional structure with well-defined functions will be designed to cover the interventions identified in NPOA-SSF.*

3.7.3.2 Providing infrastructure and inputs

There is some infrastructure such as building and landing sites and inputs including land and water transport, office and laboratory facilities within the existing national, local government and private sector institutions that are currently used to address different activities along the value chain but these are not well distributed within and across systems and are in many cases lacking. Additional infrastructure and inputs will be required to enable the newly established governance system to undertake the interventions defined in the NPOA-SSF.

a) *Existing infrastructure will be assessed and strengthened and;*
b) *Infrastructure will be provided to support the newly established governance system.*

3.7.3.3 Providing human resources

There are public and private sector players in fisheries management, research and training at national and to a limited extent at local government, and community levels. There are NGOs and CBOs operating in the fisheries sector. Human resource will be required to ensure that the interventions identified in the NPOA-SSF have appropriate personnel to address them. The capacity of implementing institutions identified under the proposed governance and implementation structure will need re-organization and strengthening.

a) *Existing human resources will be assessed, reorganized, mobilized and strengthened, and;*
b) *The public and private sector players will be mobilized to provide the required human resources and their capacity improved where necessary.*

3.7.3.4 Developing sustainable funding mechanisms

The fisheries sector is poorly funded despite being the second most important agricultural commodity after coffee. The sector has received support from development partners but this has been sporadic and cannot not sustain the interventions identified in the NPOA-SSF. The sector has the capacity to generate its own revenue and there have been efforts to do so but no acceptable justification has been provided to the government. The NPOA-SSF has been designed to address existing development plans of government in relation to capture fisheries and can therefore be accommodated in plans of government and development partners.

a) *A donor's conference will be convened to raise funds to kick-start NPOA-SSF;*
b) *Modalities will be developed to include the interventions in the NPOA-SSF in plans and budgets of local and central governments, and development partners, and;*
c) *An appropriate system will be developed to generate local revenue from within fisheries.*

3.8 Strategic objective VIII: Implementation

Support will be provided to facilitate effective implementation of NPOA-SSF through:

a) Establishing implementation mechanisms;
b) Establishing a monitoring and evaluation system, and;
c) Providing for sustainability.

3.8.1 Establishing implementation mechanisms

Implementation of the of NPOA-SSF will be through the mandated institution under the overall coordination of Directorate of Fisheries Resources (DFR), local government institutions, NGOs and CBOs. After establishment of LMOs and the co-management systems, modalities will be developed for these institutions to work together with established public and private sector institutions to implement the NPOA-SSF on each lake and to network at different levels of governance up to the national and where necessary regional levels.

a) A coordination system of public, private sector institutions and LMOs will be established from the landing site to national level;
b) Regional fisheries offices will be re-established as provided in the Fisheries and Aquaculture Act 2023;
c) The NPOA-SSF will be disseminated widely and it implementation promoted;
d) Project proposals, work plans and budgets will be prepared, and;
e) The institutions defined in the implementation matrix will be engaged to implement designated interventions.

3.8.2 Establishing a monitoring and evaluation system

The monitoring and evaluation (M&E) system will, as in the case of implementation be built around the existing public and private sector institutions involved in coordinating and implementation and those addressing specific thematic/interventions areas of the NPOA-SSF defined in the monitoring and evaluation matrix of the NPOA-SSF. These institutions will review the set targets periodically and adjust them appropriately.

a) An M&E system will be established at national, LMO and lower levels of implementation of NPOA-SSF and the experiences and lessons shared from the landing sites to national levels;
b) The deliverable identified in the monitoring and evaluation matrix will be reviewed, monitored and evaluated at an agreed frequency.

3.8.3 Providing for sustainability

The NPOA-SSF was designed in line with national development plans including Vision 2040, NDPIII, the Fisheries and Aquaculture Policy Implementation Strategy and Action Plan, and the Fisheries and Aquaculture Act 2023. The only major new area is to promotes human rights, visibility and participation of SSFFW in these development plans. Sustainability of plan will therefore be through existing systems.

a) Local, national, development partners, NGOs, and CBOs players in fisheries will be sensitized to use NPOA-SSF as a framework for planning capture fisheries development in Uganda, and;
b) Efforts will be made to set-up a self-support system within the established governance system.

4.0 | Implementation mechanisms

The implementation mechanism of the NPOA-SSF will consist of:

a) Implementation, and;
b) Monitoring and evaluation

4.1 Implementation

The interventions identified in Section 3.0 for each thematic area under the eight strategic objectives are summarised in implementation matrices *(Tables 7-14)* with field indicating the: Thematic area; Issue; Intervention; Activities; Deliverable; Timeframe; Actors, and Budget. The NPOA-SSF will be implemented according to these implementation matrices. However, most of the thematic areas under the strategic area of human rights principles cut across the other strategic areas and the implementation plan only provided for sensitization and preparation of standard operating procedures under this strategic area,

a) Interventions identified for each thematic area under each strategic objective will be implemented by the actors identified in the implementation matrix.
b The actors will prepare more detailed work plans to address the designated interventions.

4.2 Monitoring and evaluation

The deliverables for the different interventions for each thematic area have been summarised in a Monitoring and evaluation matrices *(Tables 15-21)* with field indicating the: Thematic areas, the Deliverable (from the implementation matrix): Means of verification; Lead institutions; and Timeframe. This will form the basin of monitoring and evaluation

a) Monitoring and evaluation will be undertaken at the different levels of governance by the actors and lead institutions responsible for the different interventions as defined in the implementation matrix.
b The deliverables for the different interventions will be reviewed, monitored, and evaluated periodically based on the monitoring and evaluation matrix of the interventions under the different strategic objectives with fields as in the implementation matrix.

4.3 Implementation matrix for the interventions.

Table 7. Strategic objective I. Recognising human rights and responsibilities

Thematic area	Issues	Interventions
1.1. Human rights and dignity	There are human rights abuses of SSFFW including harassment, extortions, bribes, brutal arrest, torture, imprisonment, confiscation and resale of gear and fish by law enforcement agencies.	The rule of law will be promoted and those who abuse human rights will be held accountable through enforcement of existing laws and regulations.
1.2. Respect of culture	There were cultural norms of fishers such as governance system of Gabungas and management systems but these have diminished and are no longer recognized and applied.	Traditional norms and practices, of fishing communities such as the governance system of Gabungas and traditional management systems will be identified and appropriate ones promoted
1.3. No discrimination	There is discrimination especially of less advantaged groups in accessing fisheries based on influence and economic ability	Standard operation procedures (SOPs) that eliminate discrimination in fisheries and empower the vulnerable will be developed and applied
1.4. Gender equality	There are socio-cultural factors that make it difficult for women and men to participate equally in all fisheries activities. This has led to areas such as fishing being dominated by men and fish processing and marketing by women	Gender equality will be promoted by considering gender in all interventions of the NPOA-SSF and balancing support in areas where men and women have comparative advantage
1.5. Equity and equality	There is un-proportional acquisition and allocation of rights such as licenses to wealthier and more influential actors	SOPs that provide for equity and rationalize access to fisheries by all stakeholders especially local communities and the vulnerable will be developed and applied
1.6. Consultation and participation	The SSFFW are not adequately consulted in formulation of policies, laws, regulations, guidelines and other issues that affect their operations	An inclusive bottom-up approach involving SSFFW will be applied in formulation of policies, laws and regulations, and in addressing key fisheries issue.
1.7. Rule of law	There is inadequate awareness and sometimes mis-interpretation of laws and regulations, persistence of obsolete laws, selective application of laws and regulations, and application of laws which do not exists	Awareness of laws and regulations will be increased, obsolete laws reviewed and improved, and only existing laws applied and equally to all stakeholders
1.8. Transparency	There is inadequate transparency among stakeholders in processes and procedures	All processes and procedures affecting SSFFW will be undertaken in a transparent and inclusive manner.
1.9. Accountability	There is limited accountability by the different players	Stakeholders will be held accountable for their actions in line with existing policies, laws, and regulations

Thematic area	Issues	Interventions
1.10. Economic social environment and resource sustainability	There is degeneration in social, economic, environmental, and resources sustainability	NPOA-SSF has been designed so as to promote social, economic, environmental and resource sustainability
1.11. Holistic and integrated approach	There is inadequate consideration of all components of the ecosystem in development of fisheries resources	All relevant components of the ecosystem will be considered in development and management of fisheries resources in line with the Ecosystem Approach to Fisheries and the Blue economy Strategy and Action plan
1.12. Social responsibility	There is inadequate considerations of other stakeholders in development and management of fisheries	The needs of all stakeholders will be considered in development and management of fisheries resources
1.13. Social and economic viability	Social, economic, environmental, and resources viability is sometimes not considered in conservation and development of fisheries resources	Social, economic, and environmental viability of the fisheries resources with be considered before their exploitation

Table 8. Strategic objective II. Organising governance systems

Thematic area	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG - M
2.1. Organizing tenure	Lack of organization to coordinate management of individual lakes	Form a Lake Management Organization (LMO) on each lake	Prepare guidelines and form one LMO on each lake	An LMO on each lake	Yr1	DFR, LG, SSFFW	21,508
		Provide land for landing site infrastructure	Acquire land for landing site infrastructure	Land for fisheries infrastructure	Continuous	DFR, LG, LMO	
2.2. Organizing stakeholders	Limited organization and engagement of stakeholders	Develop a database of stakeholders and their roles in fisheries	Stakeholder analysis and determine their roles	Database of stakeholders and their roles	Within Yr1	DFR, LMOs LG. NGOs, SSFFW	50

Thematic area	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG - M
	Inadequate organization of categories of stakeholders at differed levels of governance	Promote formation of stakeholder groups in priority areas of the NPOA-SSF and network each category from grass-root to national levels	Form stakeholder groups in selected thematic areas	Stakeholder groups formed in key thematic areas	Within 2 Yrs	DFR, LG, LMO, SSFFW	480
2.3. Promoting cultural norms	Lack of recognition of traditional leaders and traditional norms of SSFFW	Promote traditional leaders and traditional and cultural norms	Identify traditional leaders and traditional and cultural norms their advantages and disadvantages	Tradition leaders and beneficial traditions norms	Within Yr1	DFR, LG, LMO, SSFFW	50
2.4. Establishment co-management	Lack of co-management system following abolition of BMUs	Form and operationalize an inclusive co-management system	Prepare guidelines for establishing a co-management system.	Co-management guidelines	Within Yr1	DFR, LMOs, LG, Judiciary	50
			Establish co-management institutions	Co-management institutions	Within 2 Years	DFR, LG, LMO	1800
2.5. Promoting associations	Inadequate associations and limited networking to increase collective voice	Support, and network associations to the national level to provide for a stronger voice.	Identify, prioritize and form associations	Number of associations identified	Within Yrs1	DFR, LMOs LG, SSFFW	30
			Support SSFFW to form associations	Number of association formed and networked	Within 2 Yrs	DFR, LMOs LG, SSFFW	180

Table 9. Strategic objective III. Promoting socio-economic development

Theme	Issues	Interventions	Activities	Deliverable	Timeframe	Actors	Budget
3.1. Poverty reduction	Inadequate social mobilization and livelihood diversification	Social mobilization, livelihood diversification and tapping into government programs with a focus on social protection (PDM, Myoga)	Identify and promote social mobilization, registering fishers into social registries and developing alternative livelihood options for fishers	Improved knowledge and application of livelihood options and access to government programs	Continuous	LMO, CDOs	250,000
	Limited business skills and poor saving culture	Build capacity in business skills, savings and financial management	Undertake training in business skills and develop saving schemes	Improved skills in business savings culture	Continuous	LMO, CDOs	3,000
3.2. Improving socio-services	Inadequate general socio-economic services such as schools, health facilities, banks	Advocate for inclusion of socio-economic services that target SSFFW needs in plans of government, and development partners	Identify priority socio-economic services and advocate for their inclusion in development programs	Priority socio-economic service incorporated in government programs	Annually	LG, LMO, NGOs	250
	Inadequate fisheries facilities such as landing sites and fish processing facilities	Provide some socio-economic services through self-support systems	Mobilize SSFFW to provide some socio-economic services through self-support systems	Number of priority socio-economic services supported	Annually	LG, LMO, NGOs	3,000
3.3. Addressing HIV/AIDs, Bilharzia and common diseases of fishers	High prevalence of HIV/AIDS, Bilharzia, and malaria among SSFFW	Increase awareness testing and treatment against HIV/AIDS, bilharzia , malaria other common water related diseases among fishers	Work with lead agencies to increase awareness, prevention, and treatment	Increase in awareness and acess to treatment facilities	Continuous	Health service providers, NGOs	110
3.4. Promoting gender equality	Social cultural factors that make it difficult for women and men to participate equally in all fisheries activities	Consider gender in all interventions and balance support in areas where men and women have comparative advantage	Assess gender specific requirements within fisheries	Information and data on gender specific requirement	Within Yr1	DFR, LG, LMOs, NGOs	300

Theme	Issues	Interventions	Activities	Deliverable	Timeframe	Actors	Budget
			Conduct gender transformative training	Increase in the number of skilled women and youths	Annually	DFR, LG, LMO, FTIs NGOs,	240
			Provide selected inputs for fishing and post-harvest handling for women and youths	Increase in input for gender-specific activities	Annually	DFR, LG, NGOs	22,500
3.5. Integrating blue economy investments	Inadequate knowledge of blue economy investments	Undertake spatial planning for blue economy activities such as sand mining	Undertake spatial planning of key blue economy investment	Spatial plans of blue economy investments	Continuous	LG, LMOs, Blue economy investors	300
	Limited exploitation of opportunities and threats of the blue economy	Advocate for blue economy investments to provide selected socio-economic services	Socio-economic services that blue economy investments can provide SSFFW	Socio-economic services supported through blue economy investments	Annually	LG, LMO, Private Sector	180
	Positive and negative impacts on livelihoods of SSFFW and the fisheries	Assess opportunities and threats of blue economy investments to the fishers and fisheries	Assess opportunities and threats of blue economy investments and ensure that those requiring ESIA undertake it	Existing threats and opportunities of blue economy investments	Once	LG, LMO, Investors	180
	Cross cutting issues such as maritime accidents require joint actions of blue economy investment	Advocate for blue economy investors to work together to address maritime security and safety	Develop modalities for Collaboration in maritime security	Improvement in safety on the lake	Annually	LMO	900

Table 10. Strategic objective IV: Managing the fish habitat health

Theme	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UGX-Mi
4.1. Managing impacts of land use change	Inadequate knowledge and action to address impacts of land use change on the health of aquatic	Increase awareness on implications of land use changes on aquatic ecosystem health	Mobilize information on impacts of land use change on aquatic ecosystem health	Information packages	Continuous	LG, LMOs, SSFFW, NEMA	1,200
		Protect critical fish habitats	Identify and gazette fish breeding and nursery areas and biodiversity hotspots	Number and areas of gazetted areas	Annually	LG, NEMA	36,000
4.2. Managing pollutants and contaminants	Limited knowledge on consequences of pollutants and on aquatic ecosystems and consumers of aquatic products	Increase awareness on pollutants and implications on the aquatic ecosystems and consumers of aquatic products and organize SSFFW to manage pollutants especially plastics	Mobilize and share information on pollutants and contaminants of aquatic systems	Information packages on management of pollutants and contaminants	Continuous	LG, LMOs, SSFFW, NEMA	1,200
4.3. Controlling invasive weeds	Proliferation of invasive aquatic weeds	Control invasive aquatic weeds	Determine coverage and manage aquatic weeds	Reduction in coverage of aquatic weeds	Continuous	LG, LMO. SSFFW	1,000

Table 11. Strategic objective V: Applying lake productivity potential

Theme	Issues	Interventions	Activities	Deliverable	Timeframe	Actors	Budget EGX-Mi
5.1. Understanding and applying lake productivity processes	Inadequate knowledge of the relationship between lake productivity and fish production.	Provide information on how lake productivity processes determine fish production.	Package and share information on the relationship between lake productivity and fish production.	Information on the relationship between lake productivity processes and fish production	Once for each lake	NAFIRRI	180
	Lack of ecosystem models to predict fish production of individual lakes	Provide ecosystem models for predicting fish production of individual lakes	Prepare an ecosystem model for each lake for predicting fish production	Number of lakes with ecosystem models for predicting fish production	Once for each lake	NAFIRRI	600
5.2. Promoting culture based fisheries	Inadequate production especially of small water bodies	Determine capability and suitability of small water bodies to produce fish	Survey production potential of small water bodies	Number of water bodies surveyed	Continuous	NAFIRRI, DFR, LG, LMOs	750
	Improving fish production of unproductive water bodies	Stock identified capable and suitable water bodies	Stock identified suitable water bodies and monitor performance	Number of water bodies stocked and quantity of fish produced	Annually	NAFIRRI, DFR, LG, LMO	2,500
5.3. Promoting diversification to aquaculture	High investment costs of aquaculture production	Support SSFFW attempting to diversify especially to cage culture with inputs such as construction materials, seed, feed, and technical services	Identify the fishers that are making efforts but failing to diversify to cage culture	Number of SSFFW supported to diversify to cage culture	Once		20
			Support fishers with input to diversify especially cage culture	Number of SSFFW supported to diversify to aquaculture	Continuous	NAFIRRI, DFR. LMOs	1,500

Theme	Issues	Interventions	Activities	Deliverable	Timeframe	Actors	Budget EGX-Mi
5.4. Addressing impacts of climate variability and change	Limited knowledge of the impacts of climate change	Mobilize and share information on the impacts of climate variability and change on fish production and livelihoods	Mobilize and share information on the impacts of climate change	Information on impacts of climate variability and change mobilized and shared	One time off	NAFIRRI, NGOs	300
	Inadequate adaptation and mitigation to climate change	Identify and support location specific adaptation and mitigation measures	Identify and pilot location-specific adaptation and mitigation measures	Adaptation and mitigation measures for specific locations	Annually	LG, LMO, NAFIRRI	1,500
	Inadequate preparedness for calamities associated with climate change	Determine the calamities associated with climate change such as floods and put in place remedial measures	Identify and prepared for potential calamities associated with climate change	Number of calamities identified and addressed	Once in 5 yrs	LG, LMOs, Lead agencies	300
5.5. Conserving of aquatic biodiversity	Biodiversity loss	Identify suitable areas for aquatic biodiversity conservation	Mobilize information for identification of aquatic conservation areas	Information for setting up aquatic conservation mobilized	Annually	NAFIRRI, LG, SSFFW	300
	Lack of aquatic biodiversity conservation areas and a system for their management	Set up aquatic biodiversity conservation areas with communities to manage them	Establish and manage at least one community aquatic biodiversity conservation area in each LMO annually	At least one biodiversity conservation on each lake every year	Continuous	LG, LMO, SSFFW	1,500

Table 12. Strategic objective V: Sustaining and increasing fish production, value and utilization

Theme	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG-Mi
6.1. Sustaining and increasing fish production of individual lakes	Lack of information on optimal level of production of individual lakes	Determine optimal levels of production of individual lakes from production of individual fish species and prepare lake-specific management plans	Undertake stock assessment, frame surveys, CAS, biological, environmental, and socio-economic studies on each lake	Lake-specific management plan for each lake	Once every five years	NAFIRRI, DFR, LG, LMO, SSFFW	Covered under other items

Theme	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG-Mi
6.2. Sustaining and increasing production of individual commercial species	Lack of information on optimal levels of production of individual commercial fish species(SPS, Mputa, Ngege, Angara Mamba, Semutundu, Male, Ngasia, Kisinja and Nkejje) in the different lakes	Determine optimal levels of production of individual commercial species on each lake and prepare a species-specific management plan for each species on each lake	Collect information and data on production levels, biological factors, harvesting technologies, post-harvest and utilization, regulations	Species-specific management plan for individual species	Once every five years	NAFIRRI, DFR, LG, LMO, SSFFW	Covered under other items
6.2.1. Management plan for Small pelagic species (SPS)	Inadequate information on optimal levels production	Determine optimal production levels and license matching effort	Determine optimal production levels and license matching effort	Management plan for each SPS	Bi-annually	LG, LMO, DFR	
	Inappropriate harvesting technologies and obsolete regulation	Develop appropriate harvesting technologies, review and improve gear regulations	Develop appropriate technologies for harvesting SPS that has limited harm on large species.	Appropriate gear and regulation for SPS	Once	NAFIRRI, DFR, LMO,	100
			Develop appropriate regulation for harvesting SPS	Regulation appropriate gear for harvesting SPS	Once	NAFIRRI, LMO, SSFFW	50
	Inadequate skills and adoption of post-harvest technologies and products	Increase awareness and skills in post-harvest handling technologies and products	Undertake training and awareness in handling and processing of SPS	Increase in the number of SSFFW with skills in processing SPS	Continuous	DFR, FTIs	1,500
	Inadequate post-harvest infrastructure	Improve post-harvest infrastructure	Provide infrastructure support for handling and processing SPS	Improved infrastructure for SPS	Annually	DFR, Private sector	7,500

Theme	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG-Mi
	Inadequate awareness of the nutritional value	Increase awareness of nutritional value	Package and disseminate information on the nutritional value of SPS	Information packages on the nutritional value of SPS	Annually	DFR, NAFIRRI, LG, LMO, NGOs, CBO	50
	Inadequate information on trade and markets systems	Provide information on optimal trade and markets systems	Mobilize and share market information for SPS	Market information for SPS	Once	DFR, NAFIRRI	50
6.2.2. Management plan for Nile perch	Sustaining Nile perch catches	Determine optimal levels of harvest and limit licenses	Examine trends in catch to determine optimal levels of production	Optimal level of harvest	Bi annual	NAFIRRI, DFR, LMO	CAS
	Compliance and enforcement of existing regulations	Comply with and enforce minimum size at harvest of 50 cm, illegal gears and methods	Enforce minimum size at harvest of 50 cm	Improvement in catch of Nile perch	Quarterly	LG, MCS, LMO	MCS
	Post-harvest handling and marketing	Sustain established post-harvest handling and marketing systems for Nile perch	Maintain existing fish handling facilities and export channels	Nile perch quality for exports sustained	Continuous	DFR, LMOs, Industry	CAS
	Unregulated export of fish maws	Provide regulation on export of fish maws	Develop regulations on handling and export of maws	Regulation on the export of Nile perch maws	Once	DFR, Judiciary	300
	Utilization of by-products of Nile perch processing	Improve processing of Nile perch by products	Develop technologies for improvement of Nile perch by products	Technologies for improvement of Nile perch products	Continuous	DFR, NAFIRRI, Academia	100
6.2.3. Management plans for Ngege	Decline in Ngege stocks and catches	Determine optimal levels of harvest and control licenses	Examine trends in catches from CAS data	Optimal levels of harvest	Bi-annually	NAFIRRI, DFR, LMO	CAS

Theme	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG-Mi
	Persistence of illegalities	Reduce malpractices	Enforce minimum size at harvest of 25 cm and other malpractices	Improvement in the catch of Ngege	Quarterly	DFR, LG, LMO	MCS
	Degradation of nearshore breeding and nursery areas of Ngege	Protect critical nearshore breeding and nursery areas of Ngege	Demarcate and gazette breeding and nursery areas for protection	Number and area of protected areas	Continuous	DFR, NAFIRRI, LG, LMO	Fish habitat
6.2.4. Management plan for other species	Lack of regulations to guide exploitation of the species and protection of their habitats	Avoid capture of immature individuals and protect critical habitats of the species such as wetlands	Generate data to guide development of appropriate regulation.	Stocks of each species sustained	Quarterly	DFR, LG, LMO,	MCS
6.3. Regulating fishing capacity	Lack of data to guide development of appropriate regulations	Determine size at first maturity for each species and put in place appropriate regulation	Analyze available data to provide information on the size at first maturity of major commercial species	Data on size at first maturity of commercial fish species	Once	NAFIRRI	40
	Lack of data and regulation on the appropriate number of fishing boats and nets per boat for each lake and species	Determine the appropriate number of boats and nets per boat for each lake and species	Determine the suitable number of boats and nets per boat on each lake	The number of boats/nets to operate on each lake determined	Annually	NAFIRRI, DFR, LG, LMO	300
			Prepare an appropriate regulation to control effort on each lake	Regulation to control fishing effort	Once	DFR, LG, LMOs, Judiciary	50
	Lack of information on the number of licenses to should be issued on each lake and fish species	License the suitable number of boats and nets per boat for each fish species on each lake	License the suitable number of boats on each lake	The appropriate number of boats on each lake licensed	Annually	DFR. LG, LMO	1,500

Theme	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG-Mi
	Lack of a system for registration and monitoring of fishing capacity	Establish a digital system and database for registration and monitoring of fishing capacity	Develop a database and maintain a digital registration and data collection system	Digital system and database of registered fishers and fisheries data	Continuously	DFR, LMO	500
6.4. Combating IUU fishing	Lack of participation of relevant stakeholders in combating IUU fishing	Provide for participation of all relevant stakeholders in the MCS Unit	Provide for stakeholders to be involved in MCS	MCS guidelines indicating stakeholder involvement in MCS	Quarterly	DFR, FPU, LG, LMO	20
		Conduct MCS involving key stakeholders especially SSFFW	Undertake inclusive MCS operations	Reduction in illegalities	Once	DFR, LG, LMO	8,000
6.5. Reducing post-harvest fish losses, adding value and utilization	Limited adoption of post-harvest technologies	Reviewing and upscaling existing post-harvest fisheries technologies;	Evaluate and upscale existing post-harvest handling technologies	Improved knowledge and skills in fish handling and processing	Once	DFR, Academia	400
	Inadequate post harvest infrastructure especially for SPS	Provide appropriate post-harvest infrastructure especially for SPS	Determine infrastructure requirements for quality management of SPS	Information on post-harvest infrastructure requirements of SPS	Once	DFR, LC, SSF	30
			Support post-harvest infrastructure development	Improved infrastructure for handling and processing SPS	Annually	DFR, LG, Private sector	750
	Inadequate enforcement of Fish Quality Assurance rules	Improve enforcement of Fish Quality Assurance rules	Enforce existing regulations for all major commercial species	Improved compliance to fish quality rules	Quarterly	DFR, LG, NGOs	MCS

Theme	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG-Mi
6.6. Improving trade and market systems	Inadequate trade and market information and limited market infrastructure especially for SPS	Provide information on trade and market channels and infrastructure	Mobilize information on trade and market channels	Information on market and trade channels	Once	NAFIRRI, DFR, LG, SSF, Private Sector	30
			Develop an online application for accessing market information	An online application for accessing market information	Once	DFR, LG, LMOs	50
	Inadequate market infrastructure	Advocate for development of market infrastructure	Develop market infrastructure	Market infrastructure	Over 5 Yrs	DFR, Private sector	600

Table 13. Strategic objective VII: Providing enabling support services

Theme	Issue	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG -M
7.1. Providing information knowledge and skills	Inadequate management information on fish stocks, fisheries, environmental and socio-economic factors	Generate information on fish stocks, environmental and socio-economic factors of the fisheries	Mobilize and package information on the fish habitat, production, and socio-economics	Status report on the fish habitat, stocks and socio-economics for each lake	Two years	NAFIRRI, DFR. LMOs, NGOs,	
		Generate information on stocks and biological factors of the fishes	Undertake fish stock assessment and biological surveys	Information on the status of fish stocks in each lake	Four times per year	NAFIRRI, DFR, LC, LMOs fishers	2,400
		Provide information on fish catches	Undertake CAS surveys	Information on annual fish catches	Once a year	NAFIRRI, DFR, LC, LMOs, fishers	1,500
		Provide information on fisheries inputs	Undertake frame surveys	Information of fisheries facilities	Once every two years	NAFIRRI, LG, LMO, Fishers	900

Theme	Issue	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG -M
		Provide information on fish habitat health and productivity	Undertake environmental surveys	Information on the fish habitat health and productivity	Four time a year on each lake	NAFIRRI, Academia	2,400
		Provide information on socio-economic factors of the fisheries	Undertake socio-economic surveys	Information on socio-economic factors of the fisheries	Four time a year on each lake	NAFIRRI, Academia, LMOs	600
		Provide a status reports on the fisheries environment and socio-economic factors of the fishes of each lake	Synthesis available information on fisheries, environmental and socio-economic factors of the fisheries of each lake	Status report on the fisheries, environment, and socio-economic factors of the fisheries of each lake	Once every five years	NAFIRRI, Academina, NGOs	900
	Limited knowledge and skills of SSFFW	Provide management information in popular versions and local languages	Prepare information packages in simple popular versions and in local languages	Number of information packages	Continuous	DFR, NAFIRRI, Academia, NGOs	100
			Identify and centers of excellence for fisheries information sharing	A fisheries and aquaculture information data centers identified	Once	DFR, NAFIRRI, LG, SSF	20
			Establish online systems for accessing information	An online system for collecting and accessing information	Once	NAFIRRI, DFR, LG,	250
			Establish fora for sharing information between stakeholders under LMOs	Fora a for sharing information among LMOs	Continuous	DFR, LMOs,	300
			Establish targeted fisheries radio and TV programs	At least one Media house sharing fisheries information in each LMO	Annually	DFR, NAFIRRI, LOMs,Media houses	1,800

Theme	Issue	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG -M
			Organize workshops and training in selected skills	Improvement in skills and knowledge of small-scale fish workers in selected skills	Annually	FTIs, NAFIRRI, DFR, LMOs	600
7.2. Providing appropriate policies, laws and regulations	Inadequate knowledge of fisheries laws and regulations	Improve knowledge of the Fisheries and Aquaculture Act 2023 and associated regulations	Undertake extensive sensitization of the Fisheries and Aquaculture Act 2023 and associated regulations	Increase in the number of SSFFW aware of the provisions of fisheries laws and regulations	Continuous	DFR, LG, LMOs, NGOs	600
	Existence of inappropriate regulations Inadequate regulations in some of the high priority areas such as SPS, post-harvest and trade	Improve obsolete legal instruments such as the one for SPS Develop and strengthen regulations in high priority areas (SPS, post-harvest, trade)	Review and improve existing inappropriate legal instruments Prepare regulations in high priority fish production areas of SPS, post-harvest fisheries, and trade	Improved and updated legal instruments Legal instruments in high priority areas of SPS, post-harvest fisheries, and trade	Once Once	DFR, LC, LMOs Judiciary DFR, LG, LMOs, Judiciary.	100 150
	Lack of ordinances for the LMOs	Provide ordinances for operationalization of LMOs.	Develop ordinances for the different LMOs	Ordinances to guide operations of LMOs	Once	DFR. LC, LMOs, Judiciary	120
7.3 Providing capacity							
7.3.1. Providing appropriate institutional capacity	Inadequate institutional capacity to address the interventions defined in NPOA-SSF	Define an elaborate institutional structure with well-defined functions to link difference levels of governance	Prepare an institutional structure of LMOs with well-defined functions at different levels of governance from landing site to national level	An inclusive institutional structure of LMOs with well-defined functions	Once	DFR, LG, LMO	120

Theme	Issue	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UG -M
7.3.2. Providing adequate infrastructure and inputs	Inadequate infrastructure to support the interventions in the NPOA-SSF	Strengthen the existing infrastructure and provide additional infrastructure to support the newly established governance system	Undertake a need assessment to identify infrastructure and inputs	Infrastructure and inputs required for functioning of LMOs	Annual	DFR, LG, LMO,	4,260
	Lack of infrastructure to support programs for vulnerable groups	Provide infrastructure to strengthen and support programs of vulnerable groups	Undertake a need assessment to identify infrastructure and inputs requirement for vulnerable groups	Infrastructure and input support to improve operations of vulnerable groups	Annually	LG, LMOs, NGOs	500
7.3.3. Providing appropriate human resources capacity	Inadequate human resources to address the interventions of the NPOA-SSF	Strengthen human resources capacity of public and private sector players	Undertake needs assessment to identify gaps in human resources requirements	Human resources required to man LMOs defined and provided	Annual	DFR, LG, LMO,	5,400
7.3.4. Providing sustainable funding mechanisms	Lack of a sustainable funding mechanism to support implementation of NPOA-SSF interventions	Convene a donor's conference; Advocate for inclusion of the interventions in NPOA-SSF in plans and budgets of local and central government and development partners; Develop an appropriate system to generate local revenue from fisheries	Conduct a donors' conference, include budgetary requirement, advocate for inclusion in government plan, and develop mechanism to generate local revenue	Funding mechanism for implementation of the NPOA and LMOs defined	Annual	DFR, LG, LMO,	270

Table 14. Strategic objective VIII: Support to implementation, monitoring and evaluation

Theme	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UGX (Millions)
8.1. Establishing implementation mechanisms	Lack of an implementation mechanism	Set up a coordination system at national level	Prepare national work plans and budgets	Implementation mechanisms at national level	Year1	Various implementers	1,200
		Set up a coordination system at LMO / districts level	Prepare LMO/ district work plans and budgets	Implementation mechanism at local level	Annually	Various implementers	7,200
		Set up regional fisheries offices in appropriate lake regions	Provide personnel and inputs for the regional office	Regional office for each lake area established	Year1	DFR, LG, LMOs	200
		Disseminate the NPOA-SSF widely and promote its implementation	Conduct awareness raising event about the NPOA-SSF	Increase in awareness about the NPOA-SSF	Year1	DFR, LG, LMO, NGOs	3,600
		Provide lake-specific management plans	Prepare management plan for each lake and start implementation	Lake specific management plans	Year 1	DFR, LMO,	300
		Engage institutions defined in the implementation matrix to implement assigned interventions	Convene a workshop on each lake to introduce the NPOA-SSF to implementers	Implementation teams in place	Year1	DFR, LMO, LG, NAFIRRI	300
8.2. Establishing monitoring and evaluation systems	Lack of a system to monitor and evaluate interventions of the NPOA-SSF at different levels of implementation	Establish a system to periodically review, monitor, and evaluate the deliverable of the interventions in the NPOA-SSF at different levels of implementation	Prepare and implement a national M&E plan	National monitoring and evaluation plans and reports	Annually	DFR, LG, LMOs	600

Theme	Issues	Intervention	Activities	Deliverable	Timeframe	Actors	Budget UGX (Millions)
			Prepare and implement a local M&E plan	Local monitoring and evaluation plans and reports	Quarterly	LMOs, LG, Implementers	7,200
8.3. Providing for sustainability	Lack of a plan to sustain the interventions of the NPOA-SSF	Engage local, national, development partners, NGOs, CBOs, to use NPOA-SSF interventions as a framework for planning capture fisheries development, and; Set up a self-support system within the established governance system.	Prepare a sustainability plan for the NPOA-SSF	Sustainability plan for the NPOA-SSF prepared	Once	DFR, LG, LMO	150

4.4 Monitoring and evaluation

The monitoring and evaluation plan is presented in a matrix with fields indicating how the deliverable of each intervention under each thematic area will be delivered, the means of verifications, the responsible person/institutions and the timeframe.

Table 15. Strategic objective II. Organising governance systems

Thematic area	Deliverable	Means of verification	Lead institutions	Timeframe
2.1. Organizing tenure	One LMO formed on each lake	Documents	DFR, LG, Communities	Once only
	Status of landing site land for infrastructure development assessed	Document		
2.2. Organizing stakeholders	Database of stakeholders and their roles	Document	DFR, LG. LMO, NGOs, Fishers	Within Yr1
2.3. Promoting cultural norms	Cultural leader incorporated in management of landing sites and cultural norm identified and adopted	Report	DFR. LG, LMO, NGOs, Fishers	Continuous
2.4. Establishing co-management	Co-management system established	Documents	DFR, LG, LMO, Judiciary	Within 1Yr
2.5. Promoting associations	Associations formed in key areas of the value chain and networked	Report	DFR. LG. LMOs	Annually

Table 16. Strategic objective III: Promoting socio-economic development

Theme	Deliverable	Mean of verification	Lead institution	Due date
3.1. Poverty reduction	Alternative livelihood options identified and promoted	Reports	LG, LMO	Annually
	Number of fishers trained in business skills, savings and financial management	Reports	LG, LMO	Annually
3.2. Improving socio-economic services	Number of socio-economic needs of SSFFW included in development plans and provided	Report	LG, LMO	Annually
3.3. Addressing HIV.AIDs, Bilharzia, Malaria and other diseases	The number of health services addressing HIV/AIDs, Bilharzia, Malaria and other commons diseases targeting SSFFW	Report	LG. LMO, MDAs	Annually
3.4. Promoting gender equality	Number of women and youth groups formed, training events, and inputs provided	Report	LG, LMO	Year 1

Theme	Deliverable	Mean of verification	Lead institution	Due date
3.5. Integrating blue economy investments	Spatial planning of blue economy investment undertake; EIA of blue economy investments; Maritime safety addressed	Document	DFR, LMO, Private sector, NEMA	Annually

Table 17. Strategic objective IV: Management fish habit health

Theme	Deliverable	Means of verification	Responsible institution / person	Frequency / Due Date
4.1. Managing impacts of land use change	Effort to protect lake shores and river banks including afforestation	Reports	LG, LMOs	Continuous
4.2. Managing pollutants	SSFFW mobilized and managing pollutants especially plastics	Reports on reduction of plastics	LG, LMOs	Continuous
4.3. Controlling invasive weeds	Reduction on coverage of aquatic weeds	Reports	LG, LMOs	Continuous

Table 18. Strategic objective V: Applying lake productivity potential

Theme	Deliverable	Means of verification	Responsible institution / person	Frequency / Due Date
5.1. Applying lake productivity potential	Information on the relationship between lake productivity processes and fish production provided	Document	NAFIRRI. Academia	Once for each lake
	Number of lakes with ecosystem models prepared	Technical document	NAFIRRI, Academia	Once
5.2. Promoting culture based fisheries	Number of aquatic systems assessed and stocked	Reports	DFR, LG, LMO, Fishers	
5.3. Promoting diversification to aquaculture	Number of SSFFW supported to diversify to cage culture	Report	DFR, LMO, SSFFW	Annual
5.4. Addressing impacts of climate variability and change	Information on impacts of climate variability and change, and calamities mobilised. The number of adaptation, mitigation measures identified and promoted	Document	NAFIRRI, Universities. NGOs	Continuous
5.5. Conserving aquatic biodiversity	Number of biodiversity conservation areas identified, set up, and managed by communities	Document	NAFIRRI, LG, Communities	Once in each system

Table 19. Strategic objective VI: Sustaining and increasing fish production and utilization

Theme	Deliverable	Means of verification	Responsible institution / person	Frequency / Due Date
6.1. Sustaining and increasing fish production of individual lakes	Fish production from individual lakes, and major commercial species sustained at current levels or increased	Document	DFR, NAFIRRI, LMO, LG, SSFFW	Once every two years
	CAS implemented to monitor impacts of exploitation	Reports	DFR, NAFIRRI, LMO, SSFFW	Annually
6.2. Sustaining and increasing production of individual commercial species	Number of major commercial species with species-specific management plans in place and implemented.	Technical documents	DFR, NAFIRRI, Academia, LMO	
6.2.1. Management plan for Small pelagic species (SPS)	Species specific management plan for each SPS in each lake	Technical document	DFR, NAFIRRI, LMO, LG	Annual
	The numbers of license for fishing SPS increased	Licencing report	DFR, LG, LMO	Annual
	Appropriate technologies for harvesting SPS developed	Technical report	NAFIRRI	Once
	Bycatch of larger species in catches of SPS reduced	Document	DFR, NAFIRRI, LMO, LG	Once in each lake
	Regulation on suitable gear size for catching SPS developed	Legal instrument	DFR, Judiciary	Once
	The number of skilled fishers in handling and processing SPS increased and post-harvest losses reduced to <40%	Document	DFR, LC, NAFIRRI, SSF	Once
	Post-harvest fish handling infrastructure for SPS improved	Document	DFR, NaRL, LMO, LG	Once
	At least 50% of available products of SPS evaluated and up scaled	Products	DFR, NaRL, LMO, Academia	Continuous
	Awareness of the value of consuming SPS increased and the number of people consuming SPS increased to >20%	Document	DFR, NaRL, LMO, LG	Annual
	Market information for SPS provided and utilised	Document	DFR, NAFIRRI	Once
6.2.2. Management plan for Nile perch	Species-specific management plan for Nile perch in different lakes	Document	DFR, NAFIRRI, LMO	Annual

Theme	Deliverable	Means of verification	Responsible institution / person	Frequency / Due Date
	Compliance and enforce minimum size at harvest of 50 cm increases	Report	DFR, LMO,	Quarterly
	Established efforts in post-harvest handling and marketing of Nile perch are sustained	Report	DFR, LMO	Annually
	Regulations on export of Nile perch maws prepared and implemented	Regulation	DFR	Once
	Processing and utilization of Nile perch by-products is improved			
6.2.3. Management plan for tilapia	Species-specific management plan for tilapia	Document	NAFIRRI	Annual
	Compliance and enforcement of minimum size at harvest of 28 cm increases	Report	DFR, LMO	Annual
	Critical inshore breading and nursery areas identified, mapped, and protected	Report	NAFIRRI, LMO	Annual
6.2.4. Management plan for other commercial species	Size at first maturity for individual species determined, appropriate regulation developed and enforced	Report	NAFIRRI	Once
	Critical habitats of the species identified and protected	Report	NAFIRRI	Annual
6.3. Regulating fishing capacity	Appropriate number of boats for each lake determined, and an appropriate regulation put in place to enforce them	Document	NAFIRRI, DFR, LMO	Once
	Species specific licenses for the allowable number of boats issued on each lake	Report	DFR, LG, LMO	Annually
	A digital system for registration of boats and collection of data on the lakes developed	Online program	DFR, NAFIRRI, LG	Once
6.4. Combating IUU fishing	Guidelines that provide for participation of different stakeholders are developed and MCS conducted on each lake at least quarterly and illegalities reduced	Document	DFR, LG, SSF	Quarterly

Theme	Deliverable	Means of verification	Responsible institution / person	Frequency / Due Date
6.5. Reducing post-harvest fish losses, adding value and utilization	Existing post-harvest handling technologies evaluated and up scaled	Document	DFR, Academia	Annually
	Support towards improvement of post-harvest fisheries infrastructure provided	Document	DFR, LMO, LG	Annually
6.6. Improving trade and market systems	Information on profitable market and trade channels for fish and fishery products and market infrastructure provided	Report	NAFIRRI, DFR, LG, SSF, Private Sector	

Table 20. Strategic objective VII. Providing enabling support services

Theme	Deliverable	Means of verification	Responsible institution / person	Frequency / Due Date
7.1. Providing information, knowledge and skills	Information, on fish stocks, biology, environmental and social economic factors generated, packaged, and disseminate with involvement of SSFFW	Documents	NAFIRRI, LG, LMOs	Annually
	SSFFW trained in collection of selected aspects of management information such as catches (CAS) on each lake	Technical document	NAFIRRI, DFR, NGO	Annually
	Information packages prepared and provided in popular versions and local languages	Information packages	DFR, NAFIRRI, LMOs, NGOs	Annually
	Centers of excellence from where information on fisheries and aquaculture can be accessed are identified and provided to LMOs	The centre	DFR, NAFIRRI, LG, LMOs,	Once
	Online systems and centers for accessing information established	System in place	NAFIRRI, DFR, LG, LMOs	Once
	Fora for sharing and accessing information online at different levels of governance established.	System set up and operational	LMOs	Periodically

Theme	Deliverable	Means of verification	Responsible institution / person	Frequency / Due Date
	At least one targeted radio / TV programs is run once a month at LMO level	Reports	DFR, LG, LMOs, Media houses,	Once
	At least one workshop and training to create awareness and improve kills conducted in each LMO once a year.	Reports	FTIs, NAFIRRI, DFR, SSF	Annually
7.2. Providing appropriate policies, laws and regulations	Sensitization of the Fisheries and Aquaculture Act 2023 and related regulations undertaken	Instruments	DFR, LG, LMOs, Judiciary	Annually
	Existing inappropriate regulations such as that on size of boats and fishing gear for SPS revised	Report	DFR, LG, Judiciary, SSF,	Annually
	Regulations in high priority areas especially SPS, post-harvest, trade developed	Report	DFR, LMO	Annually
	Ordinances and bye laws on operations of LMOs developed	Document	DFR. LMO, Judiciary	Once
7.3. Providing capacity				
7.3.1. Providing appropriate institutional capacity	A clear institutional structure and functions for LMOs and its linkage to local, national and regional governance systems defined	Document	DFR, LG, LMO,	Once
7.3.2. Providing adequate infrastructure and inputs	Improvement in infrastructure	Report	DFR, LG, LMO,	Annually
7.3.3. Providing appropriate human resources capacity	Human resources capacity provided to address the interventions of NPOA-SSF	Report	DFR, LG, LMO,	Annually
7.3.4. Developing sustainable funding mechanisms	A donor's conference convened to raise funds to kick-start the NPOA-SSF	Document	DFR, LG, LMO,	Annually
	Advocacy to include NPOA-SSF interventions in local and central government plans and budgets undertaken	Document	LMO	Annually
	Mechanisms to generate local revenue from fisheries to run NPOA-SSF interventions especially at community level developed	Document	LMO, Community associations	Annually

Table 21. Strategic objective VIII: Support to implementation, monitoring, evaluation and sustainability

Theme	Deliverable	Means of verification	Responsible institution / person	Frequency / Due Date
8.1. Establishing implementation mechanisms	Regional fisheries offices re-established in each major lake system	Report	DFR, LMO, SSFFW	Once
	NPOA-SSF widely disseminated to promote its implementation	Report	DFR, LMO	Continuous
	LMOs set up on each lake and networked nationally	Report	DFR, LG, LMOs	Once
	Lake specific management plans based on the NPOA-SSF framework prepared under each LMO	Management plan	DFR. LG, LMO	Once
	Institutions defined in the implementation matrix engaged to implement assigned interventions	Report	DFR, LG, LMO	Continuously
	Implementation of the NPOA-SSF is coordinated at national and LMO/ district levels	Reports	DFR, LG, LMO	Quarterly
8.2. Establishing a monitoring and evaluation system	The interventions are monitored and evaluated at national, LMO/ district levels, and by implementers	Report	DFR, LMO, SSFFW	Quarterly and annually
8.3. Providing for sustainability	The NPOA-SSF interventions included in local and national development plans, and a self-support funding system set up at community level	Document	DFR, LMO	Once

5.0 | The Budget

The total investment required to implement the NPOA-SSF over a five-year period is estimated at UGX 407 billion (US$ 110 million) and is expected to come from the national budget and donor support. This will put in place a community of SSFFW and other stakeholders working together sustain and increase fish production, improve employment, the quantity of fish available for the market and reduction in multi-dimensional poverty.

Table 22. The budget for implementing different strategic objectives of the NPOA

Strategic area	Year1	Year2	Year3	Year4	Year5	Total
I. Recognizing human rights and responsibilities (cross cutting)	160	160	160	160	160	800
II. Improving governance systems	19,890	780	80	230	180	21,810
III: Promoting socio-economic development	56,360	55,460	55,280	55,280	55,280	277,660
IV. Managing fish habitat health	7,980	4,529	4,636	12,860	12,860	34,280
V. Applying lake productivity potential	3,960	2,250	2,250	2,250	2,250	12,960
VI. Increasing and sustaining fisheries production, value and utilization	7,430	5,280	5,280	5,280	5,280	27,900
VII: Providing enabling support services	3,830	2,340	2,590	1,990	2,590	13,340
VIII. Supporting implementation, monitoring, evaluation	7,040	2,640	2,840	2,640	2,840	18,000
Total	**106,650**	**73,439**	**73,816**	**80,690**	**81,440**	**406,750**

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7.0 | Annexes

7.1 Annex I. The Logical framework

Intervention	OVI	MOV	Assumptions
Goal: Small-scale fishers empowered to secure small-scale fisheries to achieve food security, poverty eradication and human rights	Poverty, nutrition, socio-economic and human rights indices; Fish production statistics	Reports of UBOs and MAAIF	NPOA-SSF embraced by stakeholders
Mission: Small-scale fishers recognized, organized, equipped, enabled, and supported to apply best practices to secure small-scale fisheries	Deliverables: 1. Human rights recognized; 2. Governance systems organized 3. Socio-economic development promoted; 4. Fish habitat health and productivity improved; 5. Fish production sustained and increased; 6. Enabling support services provided; 7. Implementation monitoring and evaluation supported	Report of the NPOA-SSF outputs; Policy documents on management of small-scale fisheries	Stakeholder willing to collaborate; Government policies favouring SSFFW;
Strategic objectives: 1. Recognizing human rights; 2. Organizing governance systems; 3. Promoting socio-economic development; 4. Managing fish habitat health; 5. Applying lake productivity potential; 6. Sustaining and increasing fish production, and utilization; 7. Providing enabling support services, and; 8. Supporting implementation, monitoring, and evaluation	Outcomes: 1. SSFFW organized into lake management entities; 2. Lakes managed in a planned manner 3. Improved application of information and data, regulations and standards manage aquatic health and productivity; 4. Improved implementation, monitoring, and evaluation of lake management processes	NPOA-SSF adopted; Database of SSF workers; Reports of LMOs; Gender disaggregated data; Reports of lake management activities; Reports of training events of SSF.	Stake holders adopt and are committed to implementation of the NPOA-SSF; Lake specific reports are prepared and received and reviewed
Interventions: 1.1. Human rights and dignity 1.2. Respect culture 1.3. Non-discrimination 1.4. Gender equality 1.5. Equity and equality 1.6. Consultation and participation 1.7. Rule of law 1.8. Transparency	Inputs (UGX - Millions): 1. Recognizing human rights and responsibilities = 800 2. Improving governance systems = 21,810 3. Promoting socio-economic development = 277,550	Approved budgets; Funds disbursement; schedules; Accountability statements; Audit reports; NPOA-SSF reports	Funds are acquired, released, spent and properly accounted for on time

Intervention	OVI	MOV	Assumptions
1.9. Accountability 1.10. Resources sustainability 1.11. Holistic and integrated approaches 1.12. Social responsibility 1.13. Social and economic viability 2.1. Organize tenure 2.2. Organize stakeholders 2.3. Promote cultural norms 2.4. Establish co-management 2.5. Promote associations 3.1. Reduce poverty 3.2. Improve socio-economic services 3.3. Address HIV/AIDs, bilharzia and malaria 3.4. Promote gender equality 3.5. Integrate blue economy investments 4.1. Manage impacts of land use change 4.2. Manage pollutants and contaminants 4.3. Control invasive weeds 5.1. Apply physical, chemical, biological conditions 5.2. Promote culture based fisheries 5.3 Promote diversification to aquaculture 5.4. Address impacts of climate variability and change 5.5. Conserve aquatic biodiversity 6.1. Sustain fish production of individual lakes 6.2. Sustain production of individual fish species 6.3. Regulate fishing capacity 6.4. Combat IUU fishing 6.5. Reduce post-harvest fish losses, 6.6. Improve trade and market systems 7.1. Provide information, knowledge and skills 7.2. Provide policies, laws, and regulations 7.3. Provide adequate capacity (infrastructure, institutions, human resources and funding) 8.1. Establish implementation mechanisms 8.2. Establish a monitoring and evaluation system 8.3. Provide for sustainability	4. Managing fish habitat health = 34,280 5. Apply lake productivity potential = 12,190 6. Increasing and sustaining fisheries production, value and utilization = 27,900 7. Providing enabling support services = 13,340 8. Supporting implementation, monitoring, evaluation = 18,000 Total = 406,750	.	

7.2 Annex II. A summary of some policies and legal instruments applicable to fisheries

There are policies and legal instruments at global, continental, regional to which Uganda is a signatory that can be customized to guide sustainable development of natural resources at national and lower levels of governance where regulations may be lacking at national level to address the thematic areas in the NPOA-SSF.

Examples of global policies and legal instruments that can be adopted to guide sustainable use of natural resources include: The Declaration on Environment and Development, The Earth Summit, Millennium Development Goals, Johannesburg Declaration, and the Sustainable Development Goals (SGDs). There are global conventions, protocols, agreements, strategies and codes of practice. The Water Policy and Strategy provides for sustainable management of water resources, through an integrated ecosystem approaches. The World Heritage Convention provides for protection of valuable ecosystems and habitats. The Ramsar Convention provides for protection of wetlands to enable them perform their ecological, economic, cultural, scientific and recreational functions. The Convention on Biological Diversity provides for sustainable use of components of biodiversity, and fair and equitable sharing of its benefits. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) regulates trading in endangered species. The Convention on Conservation of Migratory Species of Wild Animals protects wild animals that migrate outside national boundaries and ecosystems such as fish species. The Code of Conduct for Responsible Fisheries provides guidelines for conservation, management and development of living aquatic resources and their environment including aquaculture. The International Plan of Action on Illegal, Unregulated, and Unreported (IUU) fishing provides for combating IUU fishing. The Convention to Combat Desertification provides guidelines for combat desertification and mitigate the effects of drought especially in countries experiencing serious drought and desertification, particularly in Africa. The United Nations Framework Convention on Climate Change, the Kyoto Protocol, and the Paris Agreement provides mechanisms for cooperation on reducing greenhouse gases to combat climate change.

At continental level, the African Union Charter commits member states to harness natural and human resources of the continent for total advancement of its people and has articulated continental policies to guide sustainable use of natural resources at continental level. Key among these in relation to fisheries is the African Convention for Conservation of Nature and Natural Resources which provides for sustainable use of natural resources on the African continent including water, land, vegetation covers, climate change, and environment and natural resources. The AU, Agenda 2063 provides for management of natural resources to promote transformation of Africa into a global powerhouse. The resources of lakes are expected to contribute to this transformation and growth through knowledge enhancement on marine resources, navigation, fishing and exploitation of other marine resources. The guidelines for development of fisheries resources in the AU are provided in The Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa.

Regional Economic Communities such as East African Community (EAC) have legal instruments that can be applied to guide sustainable use of the resources of lakes in the East African region. The EAC Treaty provides, for sustainable utilization of natural resources through measures that protect the environment. The Protocol on Environment and Natural Resources Management provides for cooperation in management of the environment and natural resources including water resources, biological diversity, wetland resources, forest resources, wildlife, fisheries, genetic resources, and climate change. The Protocol for Sustainable Development of Lake Victoria Basin provides for sustainable development of natural resources including those of lakes. The Convention for Establishment of Lake Victoria Fisheries Organization (LVFO) provides for harmonization of measures for the sustainable development and management of the living resources of Lake Victoria. The Regional Plan of Action to prevent, deter and eliminate IUU fishing provides measures to prevent, deter and eliminate IUU fishing. The Regional Plan of Action for Management of Fishing Capacity (RPOA Capacity) provided for control of fishing capacity and mechanisms for allocation of fishing capacity. The EAC Fisheries and Aquaculture Policy provides guidelines for sustainable development of fisheries and aquaculture in the EAC.

Uganda has policies for sustainable use of fisheries resources developed in line with global, continental and regional policies in the national constitution, and in sectoral policies especially of environment, water, wetlands, forests, wildlife, and fisheries. The national constitutions provide for measures to protect and preserve the environment and natural resources and to utilize them in a sustainable manner. The environmental policies provide for conservation and sustainable use of the environment including lakes, rivers, water, wetlands, forests, biodiversity, genetic resources, control of pollution, natural heritage sites, river banks and lake shores, soil, and air quality and provides for Environmental Impact Assessment EIA and audit. The national water policies provide for: planning, use, protection and management of water resources and supply, water permits, waste discharge, effluent discharges, control of water abstraction, water quality monitoring, pollution control, water supply and sewerage treatment and contain water quality standards for different uses. The forestry policy provides for stabilization of ground water, protection of water catchments, reduction in soil erosion and moderation of climate. The wildlife policies provide for sustainable management of wildlife covering wild plants and animals, setting up and management of wildlife protected areas, protection of species, wild life user rights and trade in wildlife.

The current fisheries Act is The Fish and Aquaculture Act 2023. It provides for: Conservation, sustainable development and management, utilization and development of the fisheries; Integrated management of the fisheries; Conservation, capture, farming, rearing, processing and marketing of fish and fishery product; Licensing, control and regulation of all fisheries and aquaculture; Fishing methods and gear; Establishment and regulation of lake management organizations; Gazetting of landing sites, and; Regulation of fish breeding areas.

7.3 Annex III. Prioritization of proposed interventions

H=High (Must be done); M=Medium (Should be done); and L = Low Priority (May be done)

Strategic objective I: Recognizing human rights and responsibilities

Intervention		Priority		
		H	M	L
a)	Respect, protect human rights and dignity and increase awareness of human rights	26	1	
b)	Recognize traditional knowledge and practices and apply them appropriately	12	12	3
c)	Eliminate discrimination and empower the vulnerable	13	12	2
d)	Treat men and women equally and balance support in areas of comparative advantage	16	10	2
e)	Rationalize access to fishing rights by all stakeholders	18	8	1
f)	Involve all relevant actors in decision making and actions	21	6	
g)	Increase awareness of existing laws and regulations and apply them equally	23	3	1
h)	Be open in all processes and procedures	20	6	1
i)	Hold stakeholders accountable for their actions	21	6	
j)	Promote social, economic, environmental, and resource sustainability	20	7	
k)	Consider all components of the ecosystem in development of fisheries	19	7	1
l)	Be socially responsible to stakeholders within and outside fisheries	10	10	7
m)	Consider viability of the fisheries resources before their exploitation	17	8	2

Strategic objective II: Organising governance systems

Intervention		Priority		
		H	M	L
a)	Form a Lake Management Organisation LMO on each lake	26	1	
b)	Acquire land for landing site infrastructure and access to the lake	21	6	
c)	Develop a database of stakeholders and engage them to participate in fisheries	19	8	
d)	Form and operationalize an inclusive co-management system	20	5	2
e)	Form and network associations in key areas of the value chain	12	13	2

Strategic objective III: Promoting socio-economic development

Intervention		Priority		
		H	M	L
a)	Identify and promote diversification of livelihood options	19	8	
b)	Build capacity in business skills, savings and financial management through training	21	6	
a)	Undertake social mobilization against child labour in fishing	23	4	
b)	Advocate for inclusion of socio-economic services in development plans of government and development partners	23	3	1
c)	Promote self-support social economic services within fishing communities	22	3	2
a)	Determine and mitigate impacts calamities such as floods, Covid-19, HIV/AIDs	18	7	2
d)	Consider gender in all NPOA-SSF interventions and balance support to men and women in areas of comparative advantage	22	5	
e)	Assess opportunities and threats of blue economy investments to SSFFW	16	11	
f)	Promote collaboration of blue economy investors in addressing maritime security	14	9	4
g)	Advocate for EIAS for blue economy developments where required	16	10	1
h)	Advocate for blue economy investments to provide selected socio-economic services	14	12	1
i)	Advocate for spatial planning of blue economy investment	20	5	2

Strategic objective IV: Managing habitat health

Intervention		Priority		
		H	M	L
a)	Increase awareness, compliance and enforcement of environmental regulations in collaboration with NEMA	23	4	
b)	Manage wastes (plastic, organic, siltation) in nearshore areas	24	3	
c)	Protect lake shores and river banks including afforestation	22	3	2
d)	Control aquatic weeds using environmentally friendly methods	21	6	
e)	Protect critical fish habitats especially breeding and nursery areas	27		

Strategic objective V. Applying lake productivity potential

Intervention		Priority		
		H	M	L
a)	Provide information on how lake productivity processes determine fish production	17	10	
b)	Develop ecosystem models of individual lakes to guides prediction of their production	20	5	2
c)	Survey and stock suitable water bodies based on scientific guidance	18	6	3
d)	Provide information on impacts of climate variability and change	17	9	1
e)	Promote location specific adaptation and mitigation measures to climate change	16	9	2
f)	Establish and manage community aquatic biodiversity conservation areas	17	8	2

Strategic objective VI: Sustaining and increasing fish production, value addition, and utilisation

Intervention		Priority		
		H	M	L
Increasing and sustaining overall production of individual lakes				
a)	Sustain and increase fish production of individual lakes at optimum levels	19	7	1
b)	Sustain and increase production of individual commercially important fish species (SPS, Nile perch, Nile tilapia, and Others) in individual lakes	20	7	
c)	Managing factors that affect fish production (Capacity, IUU fishing, Post-harvest losses, culture based fisheries)	24	3	
Increasing production, value addition, and utilisation of small pelagic species (SPS):				
a)	License more boats targeting SPS	22	4	1
b)	Develop appropriate technologies for harvesting SPS	20	5	2
c)	Increase awareness and skills in handling and processing SPS	20	6	1
d)	Provide infrastructure for post-harvest handling of SPS	21	5	1
e)	Evaluate and upscale available improved products of SPS	13	12	2
f)	Increase awareness of the nutritional value of SPS	15	10	2
g)	Provide information on profitable markets for SPS	21	5	1
Sustaining production and value of Nile perch:				
h)	Determine and apply optimal levels of harvest on each lake	21	5	1
i)	Comply with and enforce minimum size at harvest of 50 cm	20	6	
j)	Sustain established efforts in post-harvest handling of Nile perch	19	8	
k)	Improve processing and utilization of Nile perch by products	18	9	
l)	Regulate export of fish maws	20	6	1
Sustaining production of Nile tilapia:				
m)	Determine and apply optimal levels of harvest on each lake	21	5	1
n)	Comply with and enforce of minimum size at harvest of 28 cm	22	4	1
Sustaining production of other commercial species:				

Intervention		Priority		
o)	Determine the size at first maturity for each species and an appropriate regulation	23	3	1
p)	Protect critical habitats of the species especially wetlands	26	1	
Managing other factors that affect fish production				
q)	Determine the suitable number of boats and nets per boat on each lake and provide an appropriate regulation to enforce them	16	8	3
r)	Issue species specific licenses for the allowable number of boats on each lake	13	11	3
s)	Develop a digital system for registration of boats and collection of data	20	5	2
t)	Develop guidelines that provide for participation of different stakeholders to participate in MCS and conduct MCS	20	6	1
u)	Provide incentives for SSFFW to diversify to aquaculture	18	9	
v)	Evaluate and upscale existing post-harvest handling technologies	22	5	
w)	Provide support for post-harvest fisheries infrastructure with emphasis on SPS	25	2	
x)	Provide information on profitable markets for fish and fishery products and market infrastructure	21	6	

Strategic objective VII: Providing enabling support services

Intervention		Priority		
		H	M	L
Improving knowledge and skills:				
a)	Generate, package, and disseminate management information, on fish stocks, biology, fish habitat health and productivity, and social economic factors	20	7	
b)	Train SSFFW to collect management information such as catches (e-CAS) and relay it using mobile phones	18	9	
c)	Provide management information in popular versions and local languages	17	9	1
d)	Identify centres of excellence from which information on fisheries and aquaculture can be accessed	16	9	2
e)	Establish online systems and centres for accessing information	20	6	1
f)	Establish fora for sharing and accessing information online at different levels of governance	19	8	
g)	Establish targeted fisheries radio/TV programs at national and LMO levels	18	9	
h)	Conduct workshops and training to increase awareness and improve kills	19	8	
Providing appropriate policies, regulations, and guidelines:				
i)	Undertake extensive sensitisation of the Fisheries and Aquaculture Act 2023 and related regulations	25	2	
j)	Improve existing inappropriate regulations such as that on size of boats on different lakes and fishing gear regulation for SPS	21	6	
k)	Develop regulations in high priority areas (SPS, post-harvest, trade)	19	8	
l)	Develop regulations and ordinances for operationalization of LMOs	23	3	1
Improve capacity:				
m)	Define an elaborate institutional structure and functions for LMOs and its linkage to public and private players at local, national and regional governance systems	23	4	

Intervention		Priority		
n)	Provide start-up infrastructure and inputs to LMOs and strengthen existing governance infrastructures	20	7	
o)	Provide infrastructure to specifically strengthen and support programs of vulnerable groups especially women and youths	23	4	
p)	Provide start-up personnel to man LMOs and associated community institutions	22	3	2
q)	Promote collaboration between LMOs and existing public and private sector institutions	21	5	
r)	Strengthen existing capacity of local and central government, NGOs and CBOs	20	5	2
s)	Convene a donor's conference to raise funds to kick-start the NPOA-SSF	21	2	3
t)	Advocate for inclusion of interventions of NPOA-SSF in local and central government and development partners plans and budgets	22	4	1
u)	Develop an appropriate system to generate local revenue from fisheries to run NPOA-SSF interventions especially at community level	23	2	2

Strategic objective VIII: Supporting implementation, monitoring, evaluation, and sustainability

Intervention		Priority		
		H	M	L
a)	Set up regional fisheries offices and network them across the country	23	2	2
b)	Set up a LMOs on each lake and network across lake systems	21	6	
c)	Disseminate the NPOA widely and promote its implementation	22	5	
d)	Prepare lake specific management plans based on the NPOA framework for implementation at LMO level	21	6	
e)	Engage institutions defined in the implementation matrix to implement assigned interventions	18	9	
f)	Coordinate implementation at national and LMO/district levels	19	8	
g)	Monitor and evaluate the interventions at national, LMO/district levels, and by implementers	20	7	
h)	Advocate for inclusion the NPOA-SSF interventions in local and national development plans, and set up a self-support system at community level	24	3	

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