

UNITED REPUBLIC OF TANZANIA

MINISTRY OF LIVESTOCK AND FISHERIES DEVELOPMENT



FISHERIES SECTOR DEVELOPMENT PROGRAMME

**Ministry of Livestock and Fisheries Development
Po Box 9152
Dar es Salaam
Tanzania**

December 2010

TABLE OF CONTENTS

EXECUTIVE SUMMARY	iv
LIST OF ABBREVIATIONS AND ACRONYMS.....	viii
1.0 INTRODUCTION.....	1
1.1 The Design Process	3
2.0 THE PROGRAMME.....	4
2.1 Scope of the Programme.....	4
2.2 Structure of the Programme	4
2.3 Programme Goal, Objectives and Rationale.....	4
2.3.1 Goal	4
2.3.2 Objectives.....	5
2.3.3 Alignment to the NSGRP II	5
3.0 PROGRAMME RATIONALE	6
4.0 PROGRAMME COMPONENTS AND INTERVENTIONS	7
4.1 Fisheries Resource Management Component	7
4.1.1 Resources Management and Environmental Protection	8
4.1.2 Fisheries Management Information.....	8
4.2 Resources Utilization and Marketing Component.....	9
4.2.1 Quality Assurance, Standards and Control.....	9
4.2.2 Fisheries and Aquaculture Infrastructure and Technology Use	10
4.2.3 Fisheries and Aquaculture Products Marketing	10
4.3 Aquaculture Development Component.....	11
4.3.1: Aquaculture Resource Development.....	12
4.4 Research, Training and Extension Services Component	13
4.4.1: Fisheries and Aquaculture Training.....	13
4.4.2: Fisheries and Aquaculture Research	13
4.4.3: Fisheries and Aquaculture Extension Services.....	14
4.5 Legal and Institutional Framework	15
4.5.1 Regulatory Framework of the Fisheries Sector	15
4.5.2 Institutional Framework	15
4.6 Cross-Cutting and Cross- Sectoral Issues.....	16
4.6.1 Environmental Management and Conservation	16
4.6.2 Gender Mainstreaming and Equity in Fisheries Sector	16

4.6.3 HIV/AIDS Prevalence in Fisheries Communities.....	16
4.6.4 Finance and Credit	17
4.6.5 Infrastructure in the Fisheries Sector.....	17
5.0 PROGRAMME MANAGEMENT	18
5.1 National Level.....	18
5.2 Regional Level	19
5.3 District Level.....	19
5.4 Ward Level.....	20
5.5 Village Level.....	20
6.0 PROGRAMME COSTS AND FINANCE.....	21
7.0 PROGRAMME SUSTAINABILITY	22
8.0 RISK AND ASSUMPTIONS	23
8.1 Assumptions	23
8.2 Risks and flexibility	23
9.0 MONITORING AND EVALUATION	23
ANNEX 1: Fisheries Sector Development Programme Activities Estimated Costs	26

EXECUTIVE SUMMARY

The Fisheries Sector

- 1. The fisheries sector is among the important economic sub sectors of the economy in Tanzania. The sector provides substantial employment, income, livelihood, foreign earnings and revenue to the country. The industry employs more than 4,000,000 people engaged in fisheries and fisheries related activities while more than 400,000 fisheries operators are directly employed in the sector. In 2009 the fisheries sector contributed 1.3% to GDP, the per capita fish consumption is 8.0 kilogram and about 30% of animal protein consumption in Tanzania is from fish (National Economic Survey, 2009).*
- 2. Tanzania is well endowed with abundant natural resources from aquatic resource base. The total inland water area covers nearly 61,500 km² or about 6.5 per cent of the total land area. The total water area is 62,000 km² distribution of which is as follows; 35,088 km² - Lake Victoria, 13,489 km² Lake Tanganyika, 5,760 km² Lake Nyasa, 3,000 km² Lake Rukwa, 1,000km² Lake Eyasi, and 1,000km² other small water bodies. Most of these water bodies have substantial fisheries resources. On the marine side the country has a Territorial sea of about 64,000 km² and a coastal line of 1,424 kms. The Exclusive Economic Zone (EEZ) is up to 200 nautical miles covering an area of 223,000 km² providing the country with additional marine area and fisheries resources.*

The Fisheries Sector Development Programme (FSDP)

- 3. The Fisheries Sector Development Programme (FSDP) has been designed and prepared as an integral part of the country's participatory processes and fits within the framework of the NSGRP (MKUKUTA II), KILIMO KWANZA, Comprehensive Africa Agriculture Development Programme (CAADP), Rural Development Strategy (RDS) of 2003 so as to realise the objectives of Tanzania Development Vision 2025; Millennium Development Goals (MDG) and National Fisheries Sector Policy (NFSP)-2010. Furthermore, FSDP has been formulated to implement the Fisheries Sector Development Strategy (FSDS) of 2010. The FSDP will take into consideration multi-sectoral interventions which impact on the fisheries development.*
- 4. The FSDP is designed to take on board interventions that are geared to ensure sustainable fisheries resources management, development, conservation and utilization that will be implemented at national and local levels as well as by the public and the private sector. The interventions will involve investment in fisheries resources protection and conservation; stakeholder empowerment; fisheries knowledge and information; fish and fishery products utilization and marketing;*

fisheries and aquaculture research, extension and training services; fisheries and aquaculture technologies and infrastructure; and aquaculture development.

5. *The programme articulate issues on sustainable fisheries resources management and utilization, economic growth, empowerment, poverty reduction, institutional strengthening, and Public Private Partnership in support service delivery. The FSDP implementation will comply with the requirements of Decentralisation by Devolution (D by D).*
6. *The overall goal of the FSDP is to develop a sustainable, competitive and more efficient fisheries and aquaculture industry that contributes to the improvement of the livelihoods of stakeholders and the national economy while preserving the environment.. The specific objectives of FSDP are to:*
 - i) *Ensure effective fisheries resources management, protection and conservation;*
 - ii) *Strengthen fisheries and aquaculture products utilization and marketing;*
 - iii) *Strengthen and support fisheries and aquaculture research, training extension and information services;*
 - iv) *Develop and strengthen appropriate fisheries and aquaculture Infrastructure; and*
 - v) *Promote aquaculture development, management and environmental conservation.*
7. *The programme has six (6) components and eleven (15) sub components. Components have been designed to cover broad sector's strategic areas and their respective challenges which need strategic to addresses issues in fisheries sector. These are:-*
 - (i) *Fisheries Resource Management Component;*
 - (ii) *Resources Utilization And Marketing Component;*
 - (iii) *Aquaculture Development Component;*
 - (iv) *Research, Training and Extension Services Component;*
 - (v) *Legal and Institutional Framework; and*
 - (vi) *Cross cutting and Cross-Sectoral Issues.*

Programme Management

8. *Effective implementation of the FSDP calls for the involvement of different actors at all levels. The MLFD will oversee the implementation of FSDS at national level while PMO-RALG will oversee its implementation at LGA level.*
9. *The coordination of Programme will comprise a full-time National Project Coordinator/Focal Point, Monitoring and Evaluation Officer, Procurement Officer and a Project Accountant, all to be assigned to the programme fulltime by MLFD.*

Coordination Mechanism

10. *The implementation and coordination of the FSDP interventions will be mainstreamed in existing Government framework for the coordination of the ASDP and NSGRP (MKUKUTA). This includes the coordination of the MLFD with other agricultural sector related ministries, institutions, development partners, agencies and other stakeholders such as aqua farmers, traders, processors and their associations.*

Monitoring and Evaluation:

11. *The Monitoring and Evaluation (M&E) will be co-ordinated by MLFD and undertaken on a regular and continuous basis and will be based on the current Government system and incorporates the requirements of government which include implementation progress and expenditure on different interventions as main focus given the nature of the programme. At the national level, the Directorate of Planning and Policy of the MLFD will ensure compliance with national poverty monitoring system indicators and therefore contribute to the harmonisation and prioritisation of the poverty monitoring master plan indicators.*

12. *The M&E of the programme will be done quarterly, and will be undertaken jointly by MLFD and all other participating agencies of the programme, while District Co-ordinators will visit the sites at least every month. Programme monitoring and supervision at the district level will be undertaken by the relevant local authorities at programme costs. This M&E will provide, within the existing national M&E system, timely and reliably adequate physical and financial progress information on processes and impacts in suitable form*

Cost and benefits of implementation of FSDP

13. *An indicative budget has been prepared of the likely costs of the interventions that will be required to implement the FSDP. This amounts to around Tshs. **302,683,000,000** over a period of five years.*

14. *The following benefits are expected to be accrued from implementation of FSDP over a five year period (2011/11 – 2015/16):-*

- (i) Overall fisheries sector growth will improve from the current 4.5% per annum to at least 7% per annum;*
- (ii) Overall fisheries contribution to the GDP will increase from the current 1.2% per annum to 5% per annum;*
- (iii) Overall increase in annual government revenue collection from the current 6.58 billion Tshillings to 12 billion Tshillings;*
- (iv) Increase in fisheries production from the current estimates of 350,300 metric tonnes to about 450,000 metric tonnes;*

- (v) *Increase in fisheries exports from the current 51,426 tonnes worth USD 174 million to 62,850 tonnes worth USD 215 million;*
- (vi) *Increase in employment for full time fishers from the current 170,038 to 200,000;*
- (vii) *Increase in fisheries related employment from the current 4,000,000 to 4,200,000;*
- (viii) *Involvement of national fishing fleet in the EEZ fishery;*
- (ix) *Increase in fisheries establishments from the present number of 24 to 50;*
- (x) *Increase in seaweed production from the current 8,000 tonnes to 12,000 tonnes (dry weight);*
- (xi) *Increase in aquaculture fish production from the current 1,200 tonnes to 10,000 tonnes;*
- (xii) *Increase in centres of fish seed production from the current 8 centres to 20 centres; and*
- (xiii) *Incidences of illegal/illicit fishing activities reduced by 80%.*

LIST OF ABBREVIATIONS AND ACRONYMS

BMUs	Beach Management Units
CBOs	Community Based Organizations
D by D	Decentralisation by Devolution
EEZ	Exclusive Economic Zone
FSDS	Fisheries Sector Development Strategy
HACCP	Hazard Assessment Critical Control Point
IUU	Unreported and unregulated
LGAs	Local Government Authorities
LVEMP I	Lake Victoria Environment Management Project I
MACEMP	Marine and Coastal Environmental Management Project
MDGs	Millennium Development Goals
MFDC	Mbegani Fisheries Development Centre
NFFI	Nyegezi Freshwater Fisheries Institute
NFSP	National Fisheries Sector Policy
NGOs	Non Governmental Organizations
NSGRP	National Strategy for Growth and Reduction of Poverty
RDS	Rural Development Strategy
SUA	Sokoine University of Agriculture
TAFIRI	Tanzania Fisheries Research Institution
TIFPA	Tanzania Industrial Fish Processors Association
UDSM	University of Dar es Salaam
UWAWADA	Umoja wa Wavuvi Wadogo Dar-es-Salaam
VETA	Vocational Education Training Authority

1.0 INTRODUCTION

Tanzania is well endowed with abundant natural resources from aquatic resource base. The total inland water area covers nearly 61,500 km² or about 6.5 per cent of the total land area. The total water area is 62,000 km² distribution of which is as follows; 35,088 km² - Lake Victoria, 13,489 km² Lake Tanganyika, 5,760 km² Lake Nyasa, 3,000 km² Lake Rukwa, 1,000km² Lake Eyasi, and 1,000km² other small water bodies. Most of these water bodies have substantial fisheries resources. On the marine side the country has a Territorial sea of about 64,000 km² and a coastal line of 1,424 kms. The Exclusive Economic Zone (EEZ) is up to 200 nautical miles covering an area of 223,000 km² providing the country with additional marine area and fisheries resources. Furthermore, the country has significant potential for aquaculture activities which if properly harnessed will increase aqua-products contributing to food security and promoting income generation.

Surveys (table No. 1) show that fish potential is estimated to be 2,665,360 metric tones based on stock assessment conducted in various water bodies as shown in the table below. This estimate does not include fish resource in the Exclusive Economic Zone.

Table 1: Fisheries Resource Potential in the Country

Water body	Tanzania Share (Area in Km²)	Fisheries Resource Potential (Tones)	Year of Survey
Lake Victoria	35,088	2,072,360	2010
Lake Tanganyika	13,489	295,000	1998
Lake Nyasa	5,760	168,000	1994
Marine (Territorial sea)	64,000	100,000	1970s
EEZ	223,000	Unknown	NA
Other Inland Water Bodies (Minor lakes, dams, rivers, etc.)	5,000	30,000	1970s
TOTAL	346,337	2,665,360	

Source: Ministry of Livestock Development and Fisheries (2009)

The fisheries sector is among the important economic sub sectors of the economy in Tanzania. The sector provides substantial employment, income, livelihood, foreign earnings and revenue to the country. The industry employs more than 4,000,000 people engaged in fisheries and fisheries related activities while more than 400,000 fisheries operators are directly employed in the sector. In 2009 the fisheries sector contributed 1.3% to GDP, the per capita fish consumption is 8.0 kilogram and about 30% of animal protein consumption in Tanzania is from fish (National Economic Survey, 2009).

The country has substantial potential for aquaculture development both fresh and marine water. These include, diversified species in the wild suitable for culture, interested farmers; availability of human resource; raw material for fish feed production.

Table 2 List of Suitable Species for Mariculture

Organism	Scientific Name	Common Name	Local Name	Priority	
				Small scale	Commercial
Finfish	<i>Arius sp.</i>	African sea catfishes	Hongwe	+	+
	<i>Chanos Chanos</i>	Milk fish	Mwatiko	++	++
	<i>Elops machnata</i>	Ten Pounder	Hanisi/Hanithi/Kihanisi	+	+
	<i>Megalops cyprinoidea</i>	Indo Pacific carpon	Cheche	+	+
	<i>Mugil cephalus</i>	Flat-head grey mullet	Mkizai	++	+
	<i>Oreochromis mossambicus</i>	Mozambique tilapia	Perege	+	+
	<i>Siganus Sp.</i>	Rabbit fish	Tasi	+	+
	<i>Truchynous</i>	African pompano	Kolekole	+	++
	<i>Matepenaeus monoceros</i>	Speckled shrimp	Kamba, palu palu, kamba miti	+	+
	<i>Penaeus indicus</i>	Indian white prawn	Kamba	+	++
	<i>Penaeus Monodon</i>	Giant tiger prawn	Kamba miti, kaji	+	++
	<i>Penaeus semisulpatus</i>	Green tiger prawn	Kamba miti, kaji	+	++
Lobster	<i>Panulirus ornatus</i>	Omate spiny lobster	Kamba koche	+	+
	<i>Panulirus verscolor</i>	Painted spiny lobster	Kamba koche	+	+
	<i>Panulirus longipes</i>	Long-legged spiny lobster	Kamba koche	+	+
Crabs	<i>Scylla sp</i>	Mangrove crab	Kaa	+	+
Bivalves	<i>Anadara antiquata</i>	Cockle	Chaza	+	+
	<i>Donax sp.</i>	Wedge shells	Chaza	+	+
	<i>Modiolus sp.</i>	Mussels	Panga	+	+
	<i>Mytilus sp.</i>	Mussels	Panga	+	+
	<i>Ostrea anasa</i>	Oyster	Chaza	+	+
	<i>Perna sp.</i>	Mussels	Panga	+	+
	<i>Septifer sp.</i>	Mussels	Panga	+	+
	<i>Pinctada sp.</i>	Pearl oyster	Chaza	+	+
	<i>Saccostrea cucullata</i>	Hooded oyster	Chaza	+	+
Gastropods	<i>Cypraea tigris</i>	Tiger cowrie	Kombe	+	+
	<i>Cypraecassis rufa</i>	Bullmouth helmet	Kombe	+	+
Holothoridae	<i>Holothurio scabra</i>	Sea cucumber	Jongoo bahari	++	++
Seaweeds	<i>Eucheuma denticulatum</i>	Red seaweed	Mwani Mwekundu	+	+
	<i>Gracillaria sp.</i>	Red seaweed	Mwani Mwekundu	+	+
	<i>Hypnea sp.</i>	Red seaweed	Mwani Mwekundu	++	++
	<i>Kappaphycus alvarezii</i>	Red seaweed	Mwani Mwekundu	+	+
	<i>Sargassum sp.</i>	Brown seaweed	Mwani kahawia		
	<i>Turbinaria sp.</i>	Brown seaweed	Mwani kahawia	+	+

Source: TCMP, 1999

Key ++ = High potential + = Low Potential

Table 3: List of suitable fish species from Fresh water for Aquaculture in the country

Common Name	Scientific Name	Swahili Name	Small Scale	Commercial
Nile Tilapia	<i>Oreochromis niloticus</i>	<i>Sato</i>	++	++
Tilapia mossambicus	<i>Oreochromis mossambicus</i>	<i>Sato</i>	++	++
African catfish	<i>Clarias gariepinus</i>	<i>Kambale</i>	++	++
Fresh water prawns	<i>Macrobrachium rosenbergii</i>	<i>Kamba mti (maji baridi)</i>	+	++
Trout	<i>Rainbow trout</i>		+	++
Nile perch	<i>Lates niloticus</i>	<i>Sangara</i>	+	++

Key ++ = High potential + = Low Potential

Despite of the existing potentials and level of fish production, (Table 2 and 3) the country has not been able to meet her domestic fish demand. This situation has triggered importation of fish into the country. For instance in 2009 the country imported a total of 527.12 metric fish tones worth Tshs.109.68 billion.

1.1 The Design Process

The FSDP has been designed and prepared as an integral part of the country's participatory processes and fits within the framework of the NSGRP (MKUKUTA II), KILIMO KWANZA, Rural Development Strategy (RDS) of 2003 so as to realise the objectives of Tanzania Development Vision 2025; Millennium Development Goals (MDG) and National Fisheries Sector Policy (NFSP)-2010. Furthermore, FSDP has been formulated to implement the Fisheries Sector Development Strategy (FSDS) of 2010.

The *MLFD* in collaboration with key stakeholders conducted extensive consultations in the country to formulate the programme. These included Agriculture Sector Lead Ministries, Local Government Authorities, University of Dar-es-Salaam, Sokoine University of Agriculture, Tanzania Industrial Fish Processors Association (TIFPA) artisanal fishers associations such as *Umoja wa Wavuvi Wadogo Dar-es-Salaam* (UWAWADA), NGOs and CBOs. Furthermore, the design for the FSDP has incorporated specific activities in relation to the fisheries sector. The FSDP will take into consideration multi-sectoral interventions which impact on the fisheries development.

2.0 THE PROGRAMME

2.1 Scope of the Programme

The FSDP is designed to take on board interventions that are geared to ensure sustainable fisheries resources management, development, conservation and utilization that will be implemented at national and local levels as well as by the public and the private sector. The interventions will involve investment in fisheries resources protection and conservation; stakeholder empowerment; fisheries knowledge and information; fish and fishery products utilization and marketing; fisheries and aquaculture research, extension and training services; fisheries and aquaculture technologies and infrastructure; and aquaculture development.

The FSDP will continue to foster investment in a sustainable manner as well as in equitable and secure access to fisheries and aquaculture resources for food, income and employment and thus contribute to poverty reduction. Furthermore, it will amplify best practices and lessons learned from past projects such as Lake Victoria Environment Management Project I (LVEMP I), Marine and Coastal Environmental Management Project (MACEMP) and other related projects in the country on fisheries sector development. However, these initiatives did not cover all water bodies including the aquaculture sub sector.

The programme articulate issues on sustainable fisheries resources management and utilization, economic growth, empowerment, poverty reduction, institutional strengthening, and Public Private Partnership in support service delivery. The FSDP implementation will comply with the requirements of Decentralisation by Devolution (D by D).

2.2 Structure of the Programme

The FSDP design has taken into account the key issues that are stated into Fisheries Policy and Fisheries Sector Development Strategy (FSDS). It consists of four (4) components in which objective, interventions; activities and cost collected from various sources are due for implementation.

2.3 Programme Goal, Objectives and Rationale

2.3.1 Goal

The overall goal of the Fisheries Sector Development Programme is to develop a sustainable, competitive and more efficient fisheries and aquaculture industry that contributes to the improvement of the livelihoods of stakeholders and the national economy while preserving the environment.

2.3.2 Objectives

The programme has the following objectives:-

- i) To ensure effective fisheries resources management, protection and conservation;
- ii) To strengthen fisheries and aquaculture products utilization and marketing;
- iii) To strengthen and support fisheries and aquaculture research, training extension and information services.
- iv) To develop and strengthen appropriate fisheries and aquaculture Infrastructure; and
- v) To promote aquaculture development, management and environmental conservation.

2.3.3 Alignment to the NSGRP II

The FSDP is consistent with both the NSGRP II and FSDS. The FSDP goal is to contribute to the NSGRP II, which aims to raise agricultural growth from 3.2% in 2009 to 6% per annum by 2015, and to raise fisheries sub-sector growth from 2.7% to 5.3% over the same period. According to NSGRP II, the NSGRP II targets and strategic interventions for raising growth of fisheries are indicated in the table below:

Table 2 Programme Contribution to NSGRP II Targets	
<u>NSGRP II Targets</u>	
	<ul style="list-style-type: none"> • GDP growth accelerated from 6.0 percent in 2009 to 8percent-10 percent per annum by 2015 especially in areas where the poor have strong links.
	<ul style="list-style-type: none"> • Income poverty incidence reduced (national: from 33.6 percent in 2007 to 24 percent (MDG 19.3percent) in 2015; rural areas: from 37.6 percent in 2007 to 26.4 percent (MDG 20.4percent) in 2015 and under employment especially in rural areas effectively addressed.
	<ul style="list-style-type: none"> • Unemployment reduced from 10 percent in 2008 to 5 percent by 2015.
	<ul style="list-style-type: none"> • Agricultural growth increased from 3.2 percent in 2009 to 6.0 percent by 2015.
	<ul style="list-style-type: none"> • Growth of fisheries sub-sector increased from 2.7 percent in 2009 to 5.3 percent by 2015.
<u>NSGRP II Cluster Strategies</u>	
(i)	Strengthening physical infrastructure to support growth of employment generating and profitable agriculture, including fishery;
(ii)	Introducing and strengthening investments in agriculture, including farm level agro-processing, physical market infrastructure (market places), and large scale agricultural and fisheries storage facilities;
(iii)	Strengthening fishery processing, and service sector and marketing baseline information to support fishery growth;
(iv)	Promoting and adopting the use of science and technology in agriculture, including R&D for quality and nutritious food, fishery products as well as ICT to provide information on prices, markets, and advisory services;
(v)	Developing and equitably deploying and retaining human resources especially fishery extension services;
(vi)	Strengthening financing for agriculture, including links to capital markets and specialized/long term banking,

- (vii) Mitigating and adapting to climate change by supporting research programs to improve and develop new technologies, quality seeds, pest control, and agronomic practices;
- (viii) Promoting measures to cushion fishers from famine/droughts impacts;
- (ix) Implementing the National Strategy on Agriculture and HIV & AIDS to support increased agricultural production;
- (x) Ensuring fair and competitive farm gate prices and linking fishers to markets – especially domestic, regional and global markets of processed commodities;
- (xi) Increasing proportion of exported processed agricultural commodities;
- (xii) Promoting investment in the exploration of Deep Sea and Exclusive Economic Zone fisheries resources;
- (xiii) Promoting longer shelf life of fisheries products;
- (xiv) Strengthening fishers associations and cooperatives;
- (xv) Strengthening fisheries resource management and utilization(including reduction of post harvest losses), value addition and marketing, protection and law enforcement;
- (xvi) Promoting effective development of the aquaculture industry; and
- (xvii) Providing adequate fisheries related infrastructure.

3.0 PROGRAMME RATIONALE

The Programme has taken into consideration, amongst others, Tanzania Development Vision 2025, National Strategy for Growth and Reduction for Poverty, Millennium Development Goals, The Rural Development Strategy, The National Fisheries Sector Policy (2010), the Policy Paper on Local Government Reform and the Ruling Party Election Manifesto.

The FSDP is aiming at addressing the macro and micro economic changes, constraints and challenges facing the Fisheries Sector and optimally utilize the available opportunities. Some of these challenges include inadequate integration with other sectors of the economy; low development of small scale fishers and aqua farmers; ineffective fisheries resources management; low level of value addition of fish and fishery products; and environmental degradation; unsustainable fisheries resources and illegal, unreported and unregulated (IUU) fishing, illegal cross border trade; declining trend of fish species in some of the water bodies; high post-harvest losses; poor infrastructure and inappropriate technologies in fishing, low investment in aquaculture and over dependence of coastal communities on fisheries resources.

The opportunities include among others, abundant fish species in both fresh water and marine; value addition and eco-labelling of fish and fishery products for local and export markets; investment in fisheries and aquaculture facilities, infrastructure and establishments; production of quality fish seeds and feeds; manufacture of fishing gear, fisheries inputs; promotion of seaweed farming and processing; establishment of aqua sports and promotion of eco-tourism in aquatic habitats; and investment in non traditional aquatic resources such as macrophytes and sponges.

4.0 PROGRAMME COMPONENTS AND INTERVENTIONS

The programme has six (6) components and a total of fifteen (15) sub components, the overall structure of components and sub-components is as follows:

COMPONENT	SUB COMPONENT
Fisheries Resource Management Component	Resources Management and Environmental Protection
	Fisheries Management Information
Resources Utilization and Marketing	Quality Assurance, Standards and Control
	Fisheries and Aquaculture Infrastructure and Technology Use
	Fisheries and Aquaculture Products Marketing
Aquaculture Development	Aquaculture Resource Development
Research, Training and Extension	Fisheries and Aquaculture Training
	Fisheries and Aquaculture Research
	Fisheries and Aquaculture Extension Services
Legal and Institutional Framework Component	Regulatory Framework of the Livestock Sector
	Institutional Framework
Cross Cutting and Cross-Sectoral Issues	Gender Mainstreaming in the Livestock Industry
	HIV/AIDS, Malaria and Tuberculosis
	Environmental conservation
	Finance and Credit

The structure of the programme components and its sub components are as follows:

4.1 Fisheries Resource Management Component

Fisheries resources are renewable; however, capture fisheries are subject to depletion if not rationally exploited. High fishing pressure on capture fisheries resources among others is the main cause of resource depletion. Therefore, there is a need for instituting effective resources management and control mechanisms. Currently, the management tools used include monitoring, control and surveillance as well as collaborative resource management. In view of this, the government has initiated various interventions such as: establishment of 18 surveillance centres and 632 Beach Management Units (BMUs), establishment of 13 Marine Protected Areas, 13 collaborative management areas and review of the fisheries policy and legislations.

Fisheries resource management involves conservation and protection; information gathering, processing, analysis and dissemination; stakeholders participation and empowerment. Despite ongoing fisheries resources management efforts, there has been a decline in fish stocks and environmental degradation.

Effective fisheries resource management requires suitable policies and an efficient law enforcement of legislation; harmonization of sectoral national and regional policies and legislations. Furthermore, national, regional and international collaboration will be required in order to achieve vibrant and sustainable fisheries sector and therefore contribute effectively to the national economy.

4.1.1 Resources Management and Environmental Protection

Fisheries management in Tanzania has been entirely operated and implemented by the government for many years. The management defines fisheries resources as common property. Anyone can gain access to the resource through the licensing system. This system has led to increased fishing effort (in terms of fishing vessels and number of fishermen), scenario which has caused decline in catches particularly in Lake Victoria whereby research findings have shown that mean catch rates in the trawl survey have decreased from 287.7 kg hour⁻¹ in December 1997 to 80.0kg hour⁻¹ in March 2000.

Consequently, many fishery resources in the inland and marine ecosystems continue to be degraded, and the effects of degradation are generally expanding, despite efforts to control them. The causes of degradation include: illegal fishing, habitat alteration, over-fishing and by-catch, pollutants from land, and siltation among others. Therefore there is a need to strengthen the fisheries management through law enforcement and collaborative fisheries management. Currently, about 632 Beach Management Units (BMUs) has been established and yet the effort to establish more BMUs continues. This is a one way to achieve sustainable fishery resources and environment protection, conservation, management, development and wise use of fisheries resources.

The challenges of fisheries management are open access nature of fisheries resources; over dependence of fishery resources; use of illegal fishing gears and practices; illegal, unreported and unregulated fishing (IUU) and fishing trade; harvesting of endangered and rare aquatic species; environmental degradation; and poverty of the fishing communities.

Objective

To protect and conserve aquatic biodiversity and environment

Interventions

- Promote elimination of destructive and illegal fishing and trade practices.
- Promote alternative livelihoods initiatives and mechanisms.
- Promote conservation of marine and fresh water fisheries protected areas.
- Strengthen protection of critical habitats and conservation of endangered and threatened aquatic species.

4.1.2 Fisheries Management Information

Sustainable fisheries management requires sufficient knowledge and information on the status of resources base. Currently fisheries management is being constrained by adequate human capacity to enable acquisition of data and information; adequate documentation of indigenous knowledge; centralized database system; adequate information exchange and dissemination.

Objective

To improve collection, processing, storage, accessibility, utilization, exchange and dissemination of fisheries data and information

Intervention

- Develop a comprehensive management information system for the fisheries sector

4.2 Resources Utilization and Marketing Component

Consumption and marketing of fresh fish is mainly concentrated around fishing areas, whereas utilization and marketing of fish and fishery products countrywide is still low. The current per capita fish consumption in the country is estimated at 8 kilogram, which is lower than the FAO recommended rate of 11 kilogram. Fish production statistics show that there has been a decline of catch from 375,535 tons (2005) to 335,674 tons (2009) whereby fish export has also show the trend of decline from 57,289 tons (2005) to 41,148 tons (2009). Most of the fish produced in the country is consumed in the domestic markets, while exports for the period of five years (2005 – 2009) have oscillated between 15 and 12 percent of the total production.

Improved quality of fish and fishery products is important to guarantee safety and acceptability of products for human consumption and other uses. Fish and fishery products quality assurance are constrained by inadequate infrastructure, poor handling, distribution, storage and processing techniques that leads to post harvest loses of fish and fishery products. Loses occurs at all stages in the fish supply chain, thus restrict gains in domestic and foreign markets. Fish and fishery products maybe sources of transmitting food-borne infections and intoxications if not properly handled/processed.

Therefore the program is calling upon the improvement of fish handling and processing infrastructure, hygienic handling and marketing of fish and fishery products.

4.2.1: Quality Assurance, Standards and Control

Improved quality of fish and fishery products requires effective and efficient inspection and laboratory services, good manufacturing practices among others. In addition, compliance to Hazard Assessment Critical Control Point (HACCP), national and international standards is essential in order to guarantee food safety to consumers.

Fish and fishery products quality, standards and safety is constrained by adequate knowledge and skills, appropriate technologies and infrastructure.

Objective

To ensure fish and fishery products quality, safety and standards

Intervention

- Promote mechanisms to improve fish quality assurance and standards.

4.2.2: Fisheries and Aquaculture Infrastructure and Technology Use

There are more than 1000 fish landing sites in Tanzania, where fish is landed before being processed or further distributed. There are poor fish and fish products marketing, processing and transportation infrastructures in the country mostly in the remote hinterland areas. However traditional fish processing methods such as smoking, sun drying and salting are still popular in fishing villages and among Tanzanian consumers. These methods are predominant in remote areas located far from urban centres.

Essential infrastructure and facilities for fisheries and aquaculture development include fisheries laboratories, hatcheries, boat yards, fish harbour, fish landing sites, fish markets, fish handling, processing, distribution, storage and cold chain facilities. Other supportive infrastructures include transport, communication, water and electricity supply.

Appropriate technologies are required for realization of positive and viable benefits from the production and utilization of fisheries resources and aquaculture development. The main technologies include fishing, handling, processing, storage, fish seeds and feeds production, distribution and fish rearing.

The main challenges facing fisheries and aquaculture technologies and infrastructure development include investment costs, accessibility to credit facilities, technical know how, skilled personnel and involvement of stakeholders.

Objective

To promote investment in fisheries and aquaculture infrastructure and adoption of appropriate technologies

Interventions:

- Promote and support investment in fisheries and aquaculture infrastructure and facilities.
- Promote adoption of appropriate technology in fisheries and aquaculture

4.2.3: Fisheries and Aquaculture Products Marketing

Most of the marine fish and fish products are sold in the domestic market. While Nile perch is mostly exported in frozen fillet or fresh/chilled form, dried dagaa, fresh tilapia and dried Nile Perch by-products is destined to the domestic and regional African markets. Domestic consumers are traditionally fish eaters and have a preference for fresh products. Distribution of fresh products is limited by the lack of adequate

infrastructures (cold storage facilities, insulated trucks, etc.). Main export destinations for fillets are Europe, Australia, USA, Asia (Hong Kong, Singapore, Japan) and Middle East. Sun-dried Nile perch maws are exported to Asian markets, in particular Hong Kong, China and Japan. Nile perch skin is exported to UK. Other fish products exported from Tanzanian to the non African Markets are mainly marine products, such as crustaceans (lobsters, prawns, crabs and fresh-water cray fish), molluscs (octopus and squid), other marine fish and small quantities of live fish.

Increased fish and fishery products marketing and distribution call for improved handling and packaging technologies and infrastructure. Furthermore, reliable domestic and international markets are required in order to ensure effective and efficient marketing and distribution of fish and fishery products. Currently, consumption, marketing and distribution of fish and fishery products are still low.

Fisheries resources marketing challenges includes business skills, funding, quality fish and fishery products, adequate marketing infrastructure such as fish markets, landing sites, cold chain facilities and storage facilities amongst others.

Objectives

To improve quality, quantity and distribution of fish and fishery products in order to enhance efficient utilization and market competitiveness

Interventions

- Improve aquatic resources quality assurance laboratories, fish landing sites, and strengthen relevant infrastructure for fish and fishery products.

4.3 Aquaculture Development Component

The aquaculture industry in Tanzania is not well developed. However, Tanzania has substantial potential for development of aquaculture due to availability of water resources which includes rivers, lakes, the Indian Ocean, natural and man made dams and other reservoirs in the country. Many regions in Tanzania have good climate that can support aquaculture development and have sufficient water resources for the purpose. Farmers use extensive methods of productions but occasionally use supplementary feed from farm produce.

Most fish farmers in the country prefer to produce Tilapia species especially the *Oreochromis niloticus* and African catfish (*Clarias gariepinus*) in fresh water though there are many other species that could be farmed successfully. The existing potential for coastal mariculture especially for shrimp *Penaeus monodon* has attracted a number of prospective investors. Beside fin fish farming, there has been a growing enterprise in seaweed farming along the coastal strip. Cultivation of *Eucheuma spp* was introduced along the Tanzanian coast in 1989. So far, the red seaweed species being cultured include *Eucheuma spinosum*, *Eucheuma cotonii*, *Gigartina spp*. and *Gracilaria spp*.

There are 14,740 earthen ponds most of which are stocked with *O. niloticus*. The country also farms seaweed along the Indian Ocean coastline. Two species are involved these are *E. spinosum* and *E. cottonii*. In terms of production 8,000 tones are produced per year, where *e. spinosum* account for 75% of the production. Other aquaculture activities though to a small extent are crab fattening and milkfish farming in the coastal areas.

Furthermore, declining fisheries resources from capture fisheries, and ever increasing demand for fish has created an urgent need to promote aquaculture. This component intends to address key issues pertinent to aquaculture production and productivity.

4.3.1: Aquaculture Resource Development

Available records suggest that aquaculture was first introduced in Tanzania in late 1940s. It is being estimated that the industry produces about 9500 tons of fish annually, from more than 14,740 ponds scattered all over the country.

The aquaculture sub-sector has a great potential for expansion, especially due to the fact that demand for fish is increasing as a result of population growth and stagnant production from capture fisheries, both at global and domestic levels. The export drives for fish and fish products would most likely lead to aquaculture development in the country. It is being estimated that more than 50 percent of land in the country is suitable for fish farming.

Effective aquaculture industry development requires adequate and reliable resources such as land, water and quality seeds of various aquatic species. Furthermore, appropriate environmental, social, and cultural conditions are essential in order to have sustainable aquaculture development.

Development of aquaculture is constrained, inter alia, by adoption of appropriate technologies including biotechnology and bio-safety; adequate aquaculture extension services, capacity in fish disease diagnosis, adequate expertise, sufficient infrastructure, culture management and availability of quality fish seeds and feeds. Other constraints include appreciation of the opportunities in aquaculture development, accessibility to capital and markets and adequate incentives to aqua-farmer investors.

Objective

To promote efficient use of aquaculture resource base for improvement of livelihood.

Intervention

- Promote aquaculture development practices

4.4 Research, Training and Extension Services Component

Sustainable fisheries and aquaculture development requires well trained staff, strategic scientific research and adequate extension services. At present, fisheries and aquaculture development is constrained by among other factors, inadequate human and financial capacity, working facilities and infrastructure; and weak research-extension-fisher/aqua-farmer linkages.

4.4.1 Fisheries and Aquaculture Training

Currently, there are two fisheries training institutes under the Ministry with a total capacity of 220 students. These are Mbegani Fisheries Development Centre in Bagamoyo (MFDC) and Nyegezi Freshwater Fisheries Institute Mwanza (NFFI). Other institutions in fisheries training include the University of Dar es Salaam (UDSM), Sokoine University of Agriculture (SUA), Vocational Education Training Authority (VETA) and Non Governmental Organizations (NGOs).

Effective and efficient implementation of fisheries activities requires adequate infrastructure, working facilities, well trained staff as well as strengthening capabilities of private sector fisheries and aquaculture related personnel. This is achieved through institutional capacity building, awareness creation, training, exposure and exchange programmes.

The challenges fisheries and aquaculture training include funding, skilled personnel, adequate fisheries training institutions and adequate training infrastructures and facilities.

Objective

To avail competent technical personnel, professionals and trained fisherfolk and aqua farmers to cater for the industry

Interventions

- Promote development and implementation of training programmes.
- Improve capacity of fisheries and aquaculture training institutes.

4.4.2 Fisheries and Aquaculture Research

Tanzania Fisheries Research Institution (TAFIRI) is responsible for carrying out research on fisheries resources in both fresh and marine waters. The institute conducts research on fishery resources and has a role to play in the dissemination of research findings to government and stakeholders. Other collaborative institutes are the Institute of Marine Sciences and the Faculty of Aquatic Science both at the University of Dar es Salaam.

Sustainable fisheries development and management is guided by strategic scientific research and information. The challenges facing fisheries and aquaculture research are: funding of fisheries and aquaculture research Institutions, skilled personnel, research infrastructure and facilities, coordination among research collaborators, presence of scientific based database.

Objective

To develop and improve appropriate technologies for fisheries and aquaculture industries in order to increase production and productivity

Interventions

- Promote investment and capacity building in fisheries research
- Promote researches in fisheries and aquaculture and facilitate information and technology dissemination.

4.4.3 Fisheries and Aquaculture Extension Services

Improved fisheries and aquaculture extension services involves sharing of information and experience within the fisherfolk and other stakeholders in order to increase sustainable fish production and productivity. The major actors in the delivery of extension services to fishers and aqua farmers are Central and Local Government Authorities (LGAs), NGOs and private sector. On the other hand, provision of fisheries and aquaculture extension services is constrained by inadequate extension capacity, weak collaboration amongst service providers, lack of fisherfolk and aqua farmers' cooperatives and associations, weak research-training-extension-fisherfolk/aqua farmer linkages and inadequate infrastructure and facilities.

The role of fisheries extension services is to emulate fisheries knowledge and skills from the experts to the fisher folk. It also involves sharing of information and experience within the fisher folk and other stakeholders in order to increase fish production and productivity. Several approaches have been used in delivering fisheries extension services including training, public awareness creation, visit fishers and fish farmers and fisheries product promotion. Other approaches include study tours, fishers' day, mass media, exhibitions and fish farming demonstration. Major actors in the delivery of extension services to fishers and aqua farmers are Local Government Authorities (LGAs), NGOs and private sector.

The main challenges facing fisheries and aquaculture extension services include enhancing collaboration amongst extension services providers, sufficient expertise in terms of number and skills, research-training-extension-fishers/aqua farmers' linkage and adequate infrastructure and facilities.

Objective

To provide quality extension services that meet the needs of fisher-folk, aqua farmers and other stakeholders.

Interventions

- Strengthen and support fisheries and aquaculture extension services delivery
- Promote research-extension-fisherfolk/aqua farmer linkages.

4.5 Legal and Institutional Framework

4.5.1 Regulatory Framework of the Fisheries Sector

The legal and regulatory framework of the fisheries sector requires transparency, predictability, minimum discretion and resource ownership. The effective implementation of the legal and regulatory framework requires adequate capacity to enforce and monitor compliance of the laws governing the sector. Currently, law enforcement is weak due to low capacity to respond effectively to illegal fishing and trade practices.

Objective

To strengthen the legal and regulatory framework for the fisheries sector and enhance the capacity for monitoring and enforcement.

Intervention

- Strengthen national capacity on legal and regulatory framework

4.5.2 Institutional Framework

An effective institutional framework and adequate capacity are prerequisites for proper management of the fisheries sector. The National Fisheries Policy of 2010 provides for clear roles and responsibilities of stakeholders including private and public sectors. However, ineffective institutional framework and inadequate capacity hinders effective implementation of the policy.

Objective

To strengthen the institutional capacity for effective development and management of the fisheries sector.

Intervention

- Improve institutional capacity for effective development and management of the sector.

4.6 Cross-Cutting and Cross- Sectoral Issues

4.6.1 Environmental Management and Conservation

The fisheries management process seeks to promote environmental management, conservation and sustainable utilization of fisheries resources. Many of the adverse impacts on fisheries and the aquatic ecosystems, in which they are situated, are environmental in nature. Therefore, these aquatic ecosystems need to be protected from adverse environmental impacts resulting from land based and direct human activities as well as global climatic change. Fisheries investments need to be supported by environmental impact assessment for sustainability of the resources and protection of the environment.

Objective

To protect aquatic ecosystems from adverse environmental impacts.

Intervention

- Promote environmentally friendly aquatic and land based activities

4.6.2 Gender Mainstreaming and Equity in Fisheries Sector

Gender mainstreaming is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation with regards to fisheries management and development. Some groups that are mostly dependent on fisheries resources for their livelihoods are often marginalized and don't get their share equity. Therefore, there is need that gender is mainstreamed in the fisheries sector in order to achieve gender equity.

Objective

To ensure that gender is mainstreamed in the fisheries sector in order to achieve gender equity.

Intervention

- Strengthen gender mainstreaming in the fisheries sector

4.6.3 HIV/AIDS Prevalence in Fisheries Communities

HIV/AIDS is a national and global disaster and is creating a crisis in all areas of life affecting particularly young men and women including fisher communities. The challenge is therefore to support HIV/AIDS control initiatives in order to reduce the prevalence rates within fishing communities for sustainable management of fisheries resources and development.

Efforts to combat HIV/AIDS in the fisheries sector are constrained by socio-economic and cultural factors, low awareness amongst fishing communities and other

stakeholders, inadequate health services and facilities especially in the fishing communities.

Objective

To contribute to HIV/AIDS awareness raising and prevention amongst stakeholders.

Intervention

- Promote staff awareness on HIV/AIDS
- Promote and support awareness creation on HIV/AIDS amongst fishing communities

4.6.4 Finance and Credit

Investment in the fisheries sector requires high capital which is not readily available to most fisherfolk and aquaculture entrepreneurs. Moreover, most of the credits available are on short-term basis with high interest rates, inadequate fisheries insurance schemes, lack of collaterals as well as awareness to access credit facilities amongst stakeholders. Apart from special programs, the Government will establish Fisheries Development Fund and Marine Legacy Fund to cater for the fisheries sector development.

Objective

To enhance accessibility to capital and financial resources for investments and development in the fisheries sector

Interventions

- Establish Fisheries Development Fund and Marine Legacy Fund
- Promote and support establishment of fisheries savings and credit cooperative societies and associations

4.6.5 Infrastructure in the Fisheries Sector

Essential infrastructure and facilities for fisheries development include fisheries laboratories, hatcheries, boat yards, fishing harbour, fish landing sites, fish markets, transport, communication, electricity, fish processing facilities, storage facilities, cold chain facilities and water supply. In most cases, such infrastructure and facilities are lacking or dilapidated. Constraints facing fisheries infrastructure development include high investment costs, inaccessibility to credit facilities, technical backstopping, inadequate technologies and support services, worn-out infrastructure, uncoordinated and low private sector participation.

Objective

To establish and strengthen the necessary infrastructure for the development of fisheries sector.

Intervention

- Promote and support private sector participation in the investment and rehabilitation of fisheries infrastructure and facilities.

5.0 PROGRAMME MANAGEMENT

Effective implementation of the FSDP calls for the involvement of different actors at all levels. The main actors identified fall under three categories as follows:-

- Category one comprise of actors who are responsible for the overall management of the sector. This includes Ministry of Livestock Development and Fisheries; and Prime Ministers' Office - Regional Administration and Local Government (PMO-RALG).
- The second category comprise of actors who provide services, they include Ministries, Government Institutions and Agencies, Private Sector, Civil Societies (NGOs, CBOs and SBOs), Manufacturers of fisheries inputs and accessories, Research and Academic Institutions, International Organizations and Development Partners.
- Category three include those involved in the direct resource exploitation, processing, trading and consumers. These include fishers (small and large scale), aqua-farmers (small and large scale), processors (small and large scale), traders (whole sellers, retailers and agents) and consumers.

All these actors play an important role in the fishing industry and therefore have to be coordinated by the Ministry of Livestock Development and Fisheries during the implementation of FSDP. Their commitment will ensure successful implementation of FSDS activities and hence attain the overall goal of FSDP.

5.1 National Level

At the national level there will be two organs:

- (i) The National Programme Steering Committee (NPSC), will be chaired by the Permanent Secretary (PS), MLDF and will comprise officials not below the rank of Directors from MAFC, the Ministries of Finance, PO-RALG, MITM, MoW, MNRT, and Office of the Prime Minister. In addition, it will comprise Directors for Fisheries Development, Aquaculture Development, Research, Training and Extension and Policy and Planning, the selected financial and higher learning institutions, a representative of the private sector, international agencies, fishers associations, aqua-farmers associations. fish processors, NGOs, Regional Administrative Secretaries and District Executive Directors from the selected regions and districts respectively. The National Programme Coordinator/Focal point will be the Secretary to the Steering Committee. PSC will be responsible for the overall guidance and direction of the Programme implementation, and shall meet at least twice a year.

- (ii) The National Fisheries Sector Development Technical Committee (NFSBTC) will be chaired by Director of Policy and Planning and comprised of Directors of Fisheries, Aquaculture Development, Research, Training and Extension and selected members from Government, Private sectors, Academic and Research institution. The Technical Committee will meet at least quarterly and more frequently, if necessary at programme's expense. and
- (iii) The National Programme Coordinator/Focal point will be the Secretary to the Steering Committee. PSC will be responsible for the overall guidance and direction of the Programme implementation, and shall meet at least twice a year. It will be responsible for reviewing and approving (a) the annual work programmes and budgets, and (b) the project progress and audit reports. The PSC will meet every six months at the programme's expense.

The programme reports will be prepared and submitted to DPP who will be responsible for critical tasks including annual work planning and budgeting, managing programme accounts, preparing financial and quarterly progress reports for PSC. DPP will also be responsible for coordinating training of National, Regional and District staff, undertaking monitoring, backstopping, supervision and review missions. The focal point will be responsible for storage of all programme documentation and a point of interface with other institutions and donor agencies.

The coordination of Programme will comprise a full-time National Project Coordinator/Focal Point, Monitoring and Evaluation Officer, Procurement Officer and a Project Accountant, all to be assigned to the programme fulltime by MLDF.

5.2 Regional Level

At the Regional level, the Regional Fisheries Sector Development Committee (RFSDC) will be chaired by the Regional Administrative Secretary (RAS) and will comprise of members of the Regional Management Team (RMT), Advisor to the fisheries sector; and representatives from the private sector, fisheries associations and NGOs. This Committee will be responsible for coordinating and monitoring all fisheries management and development related interventions, promoting initiatives to achieve sustainable fisheries sector development in the region and facilitate reporting on fisheries development situation and interventions to appropriate organs.

5.3 District Level

District Programme Coordinating Committee (DPCC) comprising the relevant district implementing institutions (including DAS, DALDO, DFsO, DADO) and other members of District Management Team (DMT) as well as representatives from fisheries and aqua-farmers associations, NGO, CBOs and CSOs and District Project Coordinator (DPC) from existing district staff nominated for each of the project's will be set up and chaired by the District Executive Director (DED). The DPCC will clear the way for programme

implementation by establishing a good understanding and linkage between the programme on the one hand, and the beneficiaries and local institutions, on the other. At the Districts, the programme will be implemented through the existing line Departments in the District. The DPCC (using the DPC) will liaise with the DPP for all programme activities regarding the District. The DPCs (under the leadership of the DEDs) will prepare progress reports (Financial and Physical) on implementation of the programme. The DPCC (using the DPCs) will, in their co-ordination duties, work closely with officials of the various local governments and other implementing agencies within the Districts, as well as provide the technical and reporting link with MLDF.

5.4 Ward Level

At the ward level, the Ward Fisheries Development Committee (WFDC) will be chaired by the Ward Executive Officer (WEO). The committee will comprise Village Chairpersons, Village Executive Officers (VEOs), Fisheries and Aquaculture Extension Workers, leaders from religious organizations, representatives from NGOs and CSOs operating in the ward as well as influential people (business people in fisheries industry and fishers/aqua-farmers). The committee will be responsible for identifying fisheries management and development problems at ward level, promoting activities/initiatives to develop fisheries management plans. Others will include preparing fisheries by-laws, mobilising resources for implementing fisheries activities, coordinating and monitoring fisheries management and development activities in the ward and liaising with the district authorities on fisheries management and development issues.

5.5 Village Level

At village level, the Village Fisheries Development Committee (VFDC) will be chaired by the Village Chairman (VC). It will comprise the Village Executive Officer (VEO) who will be the secretary to the committee. Other members of the committee will include other village councils members, village fisheries extension workers and representatives from NGOs and CSOs operating in the village, BMUs, leaders of religious denominations, fishers, aqua-farmers, processors and traders. The responsibilities of the VFDC will be similar to those of the WFDC at village level.

6.0 PROGRAMME COSTS AND FINANCE

Tables 2 summarise programme costs by components. Total project cost including contingencies is estimated at Tshs. **302,683,000,000 (Table 2)**. All costs were estimated using the prevailing market prices in Tanzania Shillings and converted to USD at the May 2010 exchange rates. Physical contingencies on civil works were estimated at 10% and at 5% for other categories. Foreign inflation contingency at the rate of 7.9% has been added, based on the Consumer Price Index of Agricultural and petroleum products. Inflation on local prices has been cost at 7.9 % per year from PY1-5.

Table 2: Summary Programme Costs by Components ('000,000)

COMPONENT	Year 1	Year 2	Year 3	Year 4	Year 5	Total	% Total
Fisheries Resource Management Component	8,590	7,047	5,561	4,484	3,868	29,550	17.3
Resources Utilization and Marketing	15,340	12,240	10,260	8,110	6,050	52,000	30.4
Aquaculture Development	2,600	2,450	2,300	2,150	2,050	11,550	6.8
Research, Training and Extension	12,600	11,920	10,220	9,880	9,550	54,170	31.7
Legal and Institutional Framework Component	970	920	870	770	770	4,300	2.5
Cross Cutting and Cross-Sectoral Issues	4510	4510	3500	3500	3500	19,520	11.4
Total	44,610	39,087	32,711	28,894	25,788	171,090	100.0

According to FSDS, the following benefits are expected to be accrued from implementation of FSDP over a five year period (2011/11 – 2015/16):-

- (i) Overall fisheries sector growth will improve from the current 4.5% per annum to at least 7% per annum;
- (ii) Overall fisheries contribution to the GDP will increase from the current 1.2% per annum to 5% per annum;
- (iii) Overall increase in annual government revenue collection from the current 6.58 billion Tshillings to 12 billion Tshillings;
- (iv) Increase in fisheries production from the current estimates of 350,300 metric tonnes to about 450,000 metric tonnes;
- (v) Increase in fisheries exports from the current 51,426 tonnes worth USD 174 million to 62,850 tonnes worth USD 215 million;

- (vi) Increase in employment for full time fishers from the current 170,038 to 200,000;
- (vii) Increase in fisheries related employment from the current 4,000,000 to 4,200,000;
- (viii) Involvement of national fishing fleet in the EEZ fishery;
- (ix) Increase in fisheries establishments from the present number of 24 to 50;
- (x) Increase in seaweed production from the current 8,000 tonnes to 12,000 tonnes (dry weight);
- (xi) Increase in aquaculture fish production from the current 1,200 tonnes to 10,000 tonnes;
- (xii) Increase in centres of fish seed production from the current 8 centres to 20 centres; and
- (xiii) Incidences of illegal/illicit fishing activities reduced by 80%.

7.0 PROGRAMME SUSTAINABILITY

Analysis of the elements needed for ensuring sustainability such as administrative capability at various operational levels (National, Regional, District and Village level), management process involved in the implementation of FSDP and willingness of the key beneficiaries to contribute in the planning, implementation and monitoring shows sufficient evidence to concluded that the FSDP has a good if not excellent chance of sustainability. Management resources (social mobilization, training, leadership implementing structure and support) and management process (planning, implementation, monitoring and evaluation) are all embedded in the programme's features and strategies The regular feedback or monitoring and evaluation allows programmatic adjustments from time to time or troubleshooting to address weaknesses and constraints in programme implementation.

The implementation structure of FSDP adheres to the decentralisation and organizational framework which make it more workable. Consultative leadership coupled with clear delineation of roles and responsibilities of various line sectoral ministries, agencies, integration and coordination is achieved through a shared view of the goals and objectives of FSDP. Multi-sectoral and ministries involvement is also regarded as a one of the major tower of strength to the successful implementation of the FSDP and those involved particularly ASLMs, regions and districts recognise that this will be pursued and encouraged.

At local level community have a sense of ownership and with their active involvement in decision making there is a room of innovation and sustaining ongoing efforts. Moreover, communities will continue to participate in the conservation, sustainable utilization and collaborative management of the aquatic resources and the environment; participate in fisheries and aquaculture development; participate in collaborative management of aquatic and coastal protected areas; participate in data collection and provision of indigenous knowledge; and provide fisheries and related support services. The

participation of the community in the different fisheries and aquaculture activities will make them feel that they are part and parcel of the programme hence run it even after the end of the project.

8.0 RISK AND ASSUMPTIONS

8.1 Assumptions

The assumptions for the successful attainment of the programme goals, objectives, purpose and result areas are well spelt out in the Logical Framework of the FSDS. However, it is assumed that the current macro-economic policies are maintained and that the government will continue to give its commitments and priorities to the fisheries sector. It is assumed also that LGAs will promote and sensitize formation of Beach Management Units (BMUs) and fisher folk associations; develop and implement fisheries management plans; mobilize financial support for fisheries development; participate in the management and conservation of aquatic and coastal resources; issue licences for artisanal and small-scale fisheries operations; formulate and implement by-laws; enforce fisheries legislation; collect revenue emanating from fisheries sources; be involved in manpower planning, recruitment and human resources development; propose areas with conservation and biodiversity values for subsequent gazettelement as protected areas.

8.2 Risks and flexibility

Institutional and political factors may have an adverse impact on the programme organisation and implementation. There is a risk that some LGAs might not give LSDP activities priority hence lead to low status of implementation.

9.0 MONITORING AND EVALUATION

Monitoring and Evaluation (M&E) is essential for FSDP implementation and performance assessment. The Monitoring and Evaluation (M&E) will be co-ordinated by MLDF and undertaken on a regular and continuous basis and will be based on the current Government system and incorporates the requirements of government which include implementation progress and expenditure on different interventions as main focus given the nature of the programme.

The current M&E government system to be consulted in the implementation of the programme include:

- Government's routine data system (RDS) including its new focus on district M&E capability and the PO-RALG socio-economic database; this is the foundation of M&E for the Programme;
- Government's Poverty Monitoring Master Plan; and
- ASDP M & E framework

The M&E of the programme will be done quarterly, this will include visits to programme areas which will be undertaken jointly by MLDF and all other participating agencies of the programme, while District Co-ordinators will visit the sites at least every month and report to MLDF headquarters. Programme monitoring and supervision at the district level will be undertaken by the relevant local authorities at programme costs. This M&E will provide, within the existing national M&E system, timely and reliably adequate physical and financial progress information on processes and impacts in suitable form

Participating agencies will, on a quarterly basis, prepare and submit to MLDF reports on programme activities that they are responsible for implementing; MLDF will also prepare similar reports. MLDF will furnish the PSC with Quarterly Progress Reports (QPR) in the agreed format. In addition to biannual supervision missions, MLDF will undertake a Mid-Term Review (MTR) in PY3. The monitoring and evaluation unit/officer will collect process and disseminate relevant information on the project's activities and achievements to all the key stakeholders of the programme.

This M&E will be done in participatory manners as one of the important element of the M&E system, this will includes be participant, beneficiary and service provider responsibility and input, allied to compatibility with the reporting and M&E systems already in place at Village, Ward and District levels through the local government reform programme. Also M&E will define simple specific, technical and organizational indicators for the whole programme, by using the indicators given in the matrices as a reference.

A SUMMARY OF FSDP ESTIMATED COST BY COMPONENTS AND SUB-COMPONENTS (TSH. "000,000")

COMPONENT	SUB COMPONENT	Year 1	Year 2	Year 3	Year 4	Year 5	Total	% Total
1. FISHERIES RESOURCE MANAGEMENT COMPONENT	Resources Management and Environmental Protection	6,500	5,457	4,161	3,614	3,118	22,850	13.4
	Fisheries Management Information	2,090	1,590	1,400	870	750	6,700	3.9
	Total	8,590	7,047	5,561	4,484	3,868	29,550	17.3
2. RESOURCES UTILIZATION AND MARKETING	Quality Assurance, Standards and Control	2,240	1,890	1,510	1,010	500	7,150	4.2
	Fisheries and Aquaculture Infrastructure and Technology Use	7,500	5,800	5,150	3,850	3,000	25,300	14.8
	Fisheries and Aquaculture Products Marketing	5,600	4,550	3,600	3,250	2,550	19,550	11.4
	Total	15,340	12,240	10,260	8,110	6,050	52,000	30.4
3. AQUACULTURE DEVELOPMENT	Aquaculture Resource Development	2,600	2,450	2,300	2,150	2,050	11,550	6.8
	Total	2,600	2,450	2,300	2,150	2,050	11,550	6.8
4. RESEARCH, TRAINING AND EXTENSION	Fisheries and Aquaculture Training	3,800	3,500	2,300	2,300	2,300	14,200	8.3
	Fisheries and Aquaculture Research	5,000	4,800	4,400	4,100	3,900	22,200	13.0
	Fisheries and Aquaculture Extension Services	3,800	3,620	3,520	3,480	3,350	17,770	10.4
	Total	12,600	11,920	10,220	9,880	9,550	54,170	31.7
5. LEGAL AND INSTITUTIONAL FRAMEWORK COMPONENT	Regulatory Framework of the Livestock Sector	370	320	270	170	170	1,300	0.8
	Institutional Framework	600	600	600	600	600	3,000	1.8
	Total	970	920	870	770	770	4,300	2.5
6. CROSS CUTTING AND CROSS-SECTORAL ISSUES	Gender Mainstreaming in the Livestock Industry	300	300	300	300	300	1,500	0.9
	HIV/AIDS, Malaria and Tuberculosis	210	210	210	210	210	1,050	0.6
	Environmental conservation	770	770	770	770	770	3,850	2.3
	Finance and Credit	3,230	3,230	2,220	2,220	2,220	13,120	7.7
	Total	4510	4510	3500	3500	3500	19,520	11.4
Total FSDP		44,610	39,087	32,711	28,894	25,788	171,090	100.0

FISHERIES SECTOR DEVELOPMENT PROGRAMME ACTIVITIES ESTIMATED COSTS (TSH. "000,000")

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
FISHERIES RESOURCE MANAGEMENT COMPONENT								
Resources Management and Environmental Protection	Promote elimination of destructive and illegal fishing and trade practices	Review of fisheries legal and regulatory framework	700	400	-	-	-	1,100
		Enforce fisheries legal and regulatory framework	300	250	200	180	150	1,080
		Develop aquaculture trade policy and legislations	420	420	320	220	120	1,500
		Establish a cross-sectoral mechanisms to monitor, control and surveillance of fisheries resources	650	550	350	250	250	2,050
		Support establishment of additional surveillance zonal and inspection units and their operation	900	850	750	700	650	3,850
		Conduct training to Sea Observers, Vessel Monitoring System Experts, Prosecutors, Fisher-folk communities and fisheries staff	730	750	830	920	940	4,170
		Provide education on sustainable fisheries to fisher-folk, investors, military and other stakeholders	658	720	790	835	900	3,903

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
		Conduct evaluation on the effect of illegal fishing and provide the results to all stakeholders	820	835	850	865	880	4,250
		Establish special surveillance unit to protect fisher-folk and fisheries resources on EEZ and other water bodies and supporting its function	220	235	350	465	580	1,850
		Cooperate with neighbouring countries on combating illegal fishing and fishery product trade.	320	350	370	460	500	2,000
		Support controlling of manufacturing, importation and trade of illegal fishing gears	240	330	350	410	440	1,770
		Support formation and operation of Beach Management Units (BMUs), BMUs Management Plans, Collaborative Fisheries Management Areas and networking.	2,200	1,850	1,650	1,450	1,350	8,500
		Establish and support the use of Ecosystems approach in the management of fisheries resources in all water bodies	780	800	830	870	900	4,180
SUB TOTAL			8,938	8,340	7,640	7,625	7,660	40,203

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
	Promote alternative livelihoods initiatives and mechanisms	Support training of fisher-folk and aqua-farmers on entrepreneurship	2,850	3,100	3,300	3,350	3,400	16,000
		Promote fisher-folk and aqua farmer projects	2,000	2,000	2,000	2,000	2,000	10,000
SUB TOTAL			4,850	5,100	5,300	5,350	5,400	26,000
	Promote conservation of marine and fresh water fisheries protected areas.	Support and establish Marine Protected Areas in collaboration with stakeholders	500	480	380	340	290	1,990
		Strengthen management of marine protected areas	250	255	257	258	260	1,280
		Construct and rehabilitate the existing marine parks	350	410	450	460	480	2,150
		Sensitize fisheries stakeholders on conservation of <i>Silikanti</i> and its environment	250	300	330	370	400	1,650
SUB TOTAL			1,350	1,445	1,417	1,428	1,430	7,070
	Promote protection of critical habitats and conservation of endangered and threatened aquatic species.	Identify critical habitats, endangered and threatened species.	250	252	254	256	258	1,270
		Establish and implement appropriate fisheries management approaches for critical habitats, endangered and threatened aquatic species.	430	450	470	490	510	2,350
		Support establishment of closed fishing areas	200	250	250	250	250	1,200
SUB -TOTAL			880	952	974	996	1,018	4,820
TOTAL SUB-COMPONENT			16,018	15,837	15,331	15,399	15,508	78,093

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Fisheries Management Information	Promote a comprehensive management information system for the fisheries sector	Develop and strengthen fisheries and aquaculture data collection, processing, analysis and dissemination and information systems	820	830	850	880	920	4,300
		Strengthen capacity on fisheries and aquaculture data base and information system development and management	440	420	400	380	310	1,950
		Conduct frame and catch assessment surveys in major and minor water bodies	1,600	1,400	1,200	1,000	800	6,000
		Promote collection of fisheries and aquaculture scientific and indigenous knowledge information	1,200	1,100	1,000	900	700	4,900
		Identify aquaculture establishments, aquaculture farmers, ponds and production magnitude in every category of culture species in the country	600	400	400	300	300	2,000
		Identify and inventorize major and minor water bodies to understand their fisheries status.	210	220	230	240	250	1,150
SUB - TOTAL			4,870	4,370	4,080	3,700	3,280	20,300
TOTAL SUB-COMPONENT			4,870	4,370	4,080	3,700	3,280	20,300
TOTAL COMPONENT			20,888	20,207	19,411	19,099	18,788	98,393

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
4.2 RESOURCES UTILIZATION AND MARKETING COMPONENT								
Quality Assurance, Standards and Control	Promote mechanisms to improve fish quality assurance and standards.	Strengthen inspection and surveillance of fish and fishery products quality assurance and standards	1,200	1,250	1,300	1,350	1,400	6,500
		Support and promote investment in value addition in fish, fishery products and aqua products.	1,600	1,500	1,400	1,300	1,100	6,900
		Construct and equip fish and fishery products laboratory for coastal zone.	1,400	1,350	1,000	650	500	4,900
		Build capacity of fish inspectors, laboratory technicians and other stakeholders.	300	300	300	250	250	1,400
		Promote eco-labeling certification of selected fish species.	440	440	310	310	200	1,700
SUB-TOTAL			4,940	4,840	4,310	3,860	3,450	21,400
TOTAL SUB-COMPONENT			4,940	4,840	4,310	3,860	3,450	21,400
Fisheries and Aquaculture Infrastructure and Technology Use	Promote and support investment in fisheries and aquaculture infrastructure and facilities.	Promote and support investment and rehabilitation of fisheries and aquaculture infrastructure facilities	3,500	3,400	2,300	1,800	1,500	12,500
		Construct and support establishment of fish landing sites, fishing harbour and fish markets	5,000	4,000	3,500	3,500	3,500	19,500
SUB TOTAL			8,500	7,400	5,800	5,300	5,000	32,000

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
	Promote adoption of appropriate technology in fisheries and aquaculture	Sensitize awareness on appropriate technologies for fisheries and aquaculture development.	800	800	800	800	800	4,000
		Establish and support fisheries and aquaculture technological resource centers	900	850	850	800	800	4,200
		Identify and document indigenous technologies in fisheries and aquaculture practices	600	650	650	650	650	3,200
SUB TOTAL			2,300	2,300	2,300	2,250	2,250	11,400
TOTAL SUB-COMPONENT			10,800	9,700	8,100	7,550	7,250	43,400
Fisheries and Aquaculture Products Marketing	Improve aquatic resources markets and marketing infrastructure for fish and fishery products	Support construction and rehabilitation of landing sites and markets	4,000	3,000	2,500	2,500	2,000	14,000
		Support investment in fish handling, processing and distribution infrastructures	3,000	3,000	3,000	2,800	2,800	14,600
		Promote consumption of fish and fishery products	750	750	750	750	750	3,750
		Identify fish and fishery products markets and fishing associations and establish networking	550	580	620	660	750	3,160
		Identify areas suitable for eco-tourism in the sea, lakes and rivers.	450	460	470	480	490	2,350

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
		Support and promote investment in fisheries eco-tourism, recreational sport fishing and ornamental fish trade	850	900	950	1,000	1,050	4,750
TOTAL SUB-COMPONENT			9,600	8,690	8,290	8,190	7,840	42,610
TOTAL COMPONENT			25,340	23,230	20,700	19,600	18,540	107,410
AQUACULTURE DEVELOPMENT COMPONENT								
Aquaculture Resource Development	Promote aquaculture development practices	Survey and map potential areas for aquaculture development.	350	350	350	350	350	1,750
		Promote and support investment in identified aquaculture resources	700	600	500	400	300	2,500
		Identify and promote culture of new potential species for culture	200	150	100	50	50	550
		Promote establishment of fish feed production	700	700	700	700	700	3,500
		Strengthen surveillance and control of transmission of diseases and escapees in cultured species	50	50	50	50	50	250
		Stock enhancement and restocking fingerlings in water bodies	1,600	1,600	1,600	1,600	1,600	8,000
TOTAL COMPONENT			3,600	3,450	3,300	3,150	3,050	16,550

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
4.4 RESEARCH, TRAINING AND EXTENSION SERVICES COMPONENT								
Fisheries and Aquaculture Training	Promote development and implementation of training programmes.	Develop and review fisheries and aquaculture training programmes	500	200	-	-	-	700
		Build capacity of fisheries training institutions	1,000	1,000	1,000	1,000	1,000	5,000
		Promote and support private sector investment in fisheries and aquaculture training	1,400	1,300	1,230	1,130	1,030	6,090
		Promote and support investment in fisheries training infrastructures and facilities	2,000	2,000	2,000	2,000	1,500	9,500
TOTAL SUB-COMPONENT			4,900	4,500	4,230	4,130	3,530	21,290
Fisheries and Aquaculture Research	Strengthen research activities in fresh and marine water bodies	Promote and support fisheries stock and biodiversity assessment research in marine and fresh water bodies.	900	850	850	850	800	4,250
		Promote and support research on fishing gears technologies and fish behaviour.	700	700	500	400	200	2,500
		Promote and support research on fish handling, preservation and processing.	800	700	700	500	500	3,200

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
		Promote investment in research on aquaculture infrastructure and inputs.	800	700	500	500	500	3,000
		Support and strengthen investment in acquisition of research infrastructure and facilities.	700	700	700	700	700	3,500
TOTAL SUB-COMPONENT			3,900	3,650	3,250	2,950	2,700	16,450
Fisheries and Aquaculture Extension Services	Promote extension information dissemination institutions	Establish and strengthen research-extension-fisher folk/aqua farmer linkages.	700	520	420	380	250	2,270
		Develop and strengthen infrastructure for fisheries and aquaculture extension services.	2,000	2,000	2,000	2,000	2,000	10,000
		Develop extension packages and disseminate to fisher-folk and aqua farmer.	800	800	800	800	800	4,000
		Promote and support private sector participation in provision of fisheries and aquaculture extension services.	300	400	500	600	700	2,500
TOTAL SUB-COMPONENT			3,800	3,720	3,720	3,780	3,750	18,770
TOTAL COMPONENT			12,600	11,870	11,200	10,860	9,980	56,510

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
4.5 LEGAL AND INSTITUTIONAL FRAMEWORK COMPONENT								
4.5.1 Regulatory Framework of the Fisheries Sector	Harmonise and Rationalise Various Laws and Regulations with other policies and legislations related to fisheries sector	Strengthen National capacity on legal and regulatory framework	100	100	100	100	100	500
		Review outdated laws and regulations	150	100	100			350
		Rationalise and harmonise multiple laws and regulations impacting on the fisheries industry	50	50				100
		Organize inter-ministerial meetings to harmonise issues which cause conflicts in implementation of laws governing the sectors	70	70	70	70	70	350
Total Intervention			370	320	270	170	170	1300
4.5.2 Institutional Framework	Improve institutional capacity for effective development and management of the sector	Strengthen national institutional capacity for effective monitoring and evaluation of the sector	250	250	250	250	250	1,250
		Strengthen collaboration with stakeholders to improve institutional capacity	50	50	50	50	50	250
		Motivate staff responsible for sector management	300	300	300	300	300	1,500
Total Intervention			600	600	600	600	600	3,000
TOTAL COMPONENT			970	920	870	770	770	4,300

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
4.6 CROSS CUTTING AND CROSS-SECTORAL ISSUES								
4.6.1 Gender Mainstreaming in the fisheries Industry	Promote gender mainstreaming in the fisheries industry	Promote and strengthen capacity for gender mainstreaming in the fisheries sector	40	40	40	40	40	200
		Promote development of gender specific technologies in fisheries sector	60	60	60	60	60	300
		Establish gender specific programmes for gender empowerment and access to land, technology, credit and markets	200	200	200	200	200	1,000
Total Intervention			300	300	300	300	300	1,500
4.6.2 HIV/AIDS, Malaria and Tuberculosis	Promote HIV/AIDS management capacity	Promote staff awareness on HIV/AIDS	50	50	50	50	50	250
		Promote voluntary counselling and testing services	50	50	50	50	50	250
		Strengthen care and support to employees living with HIV/AIDS	80	80	80	80	80	400
		Strengthen collaboration with other stakeholders in the control of HIV/AIDS, TB and Malaria among fisheries' stakeholders	30	30	30	30	30	150
Total Intervention			210	210	210	210	210	1,050
4.6.3 Environmental conservation	Promote environmental conservation in the fisheries industry	Strengthen capacity on environmental conservation	100	100	100	100	100	500
		Promote environmentally friendly aquatic and land based activities	100	100	100	100	100	500
		Strengthen technical support services on environmental issues	70	70	70	70	70	350

Sub - component	Intervention	Activity	Year 1	Year 2	Year 3	Year 4	Year 5	Total
		Conduct environmental impact assessment for fisheries and aquaculture investments where appropriate	500	500	500	500	500	2,500
Total Intervention			770	770	770	770	770	3,850
4.6.4 Finance and Credit	Promote investment in the fisheries industry	Provide conducive investment environment for private sector	40	40	30	30	30	170
		Establish Fisheries Development Fund and Marine Legacy Fund	3,000	3,000	2,000	2,000	2,000	12,000
		Sensitize designated financial institutions to provide credit facilities to the fisheries industry	60	60	60	60	60	300
		Promote establishment of insurance schemes to cater for the fisheries sector	30	30	30	30	30	150
		Secure funding within and/or outside to finance the FSDP	50	50	50	50	50	250
Total Intervention			3,230	3230	2220	2220	2220	13,120
TOTAL COMPONENT			4,510	4,510	3,500	3,500	3,500	19,520
GRAND TOTAL PROGRAM			67,908	64,187	58,981	56,979	54,628	302,683