

## THE REPUBLIC OF ZAMBIA

# **Ministry of Agriculture and Co-operatives**

# **Draft National Fisheries Policy**

(2010 - 2020)

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# **FOREWORD**



# Acknowledgements



# **Working Definitions**



# Acronyms



# Introductions



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# 1.0 Introduction

# 1.1 Scope (aim) of the National Fisheries Policy

The aim of the policy is to provide an overall national vision for the development of the sector. The National Fisheries Policy seeks to give substance to the national fisheries vision. The policy prescribes the institutional arrangements for the management of the fisheries sector and identifies relevant stakeholder institutions that will support implementation to address current concerns. The overall policy goal is stated and statements are made over each specific policy statement. Clear achievable objective the their underlying strategies are stated.

# 2.0 Situation Analysis

# 2.1. The Importance of Fisheries

## 2.1.1 The fisheries resource base

There are three major basins in Zambia: the Zambezi, Luapula and Lake Tanganyika. The Luapula Basin consists of the following major sections: the Chambeshi River; the Bangweulu Lakes and Swamps Complex; Luapula River; and Lake Mweru. The Zambezi catchment area is the largest and consists of the following major sections: Luangwa River; Lukanga swamps, Kafue River; Upper Zambezi; the Middle Zambezi, now dominated by Lake Kariba; and Lower Zambezi.

The Lake Tanganyika basin in Zambia is the smallest and consists of a fish fauna with Nile affinities. The Mweru - Wa - Ntipa catchment could be considered to be another basin since it is an internal drainage system with no outlet. Geologically however it has connections to the Mweru Luapula system.

The natural fisheries of Zambia have played an important role in the country's develop to Total fish production in recent years has been in the region of 65,000 to 70,000 tonnes annually and this account for over 40% of the animal protein production. Total fish production has increased from 40,000 tonnes in the late sixties and early seventies. However, the per capita supply has decreased from 12 kg to 7 kg in ear. This is attributed to a high population growth rate estimated at 3.2% per annum. The increasing demand for fish has resulted in increasing the fishing pressure on nearly all important fish stocks. This situation, calls for the need to improving the management of capture fisheries if they are to continue to contribute positively to economic development.

The small-scale, artisanal, fishers operating in the inshore areas using gill net and small fishing boats dominate nearly all fishery areas of Zambia. Artisanal fishers tend to be attached to the fishery sector by strong cultural and traditional values. Consequently, they see very little prospects outside the fisheries sector and continue fishing even when stocks are being depleted and profit margins declining. As a result, fish stocks that are exploited by artisanal fishers are in most cases overexploited.

Zambia is estimated to have the capacity to produce about 150,000 metric tonnes of fish annually on a sustainable basis. The maximum catches ever realised were 70,000 metric tones in 1990 after which catches have declined. Over 300,000 people are involved in related activities, that is to say, artisanal fish processing, fish trading and boat building. People are also involved in industrial fish processing, fishing equipment trade, fisheries research, extension service and administration.

The average annual per-capita consumption of fish is estimated at 7 ki ams, which accounts for more than 40% of the animal protein intake of an average Zambian diet. Fish is, therefore, a source of high quality animal protein. The fisheries sector's share of the Gross Domestic Product (GDP) was estimated at 3.2%. The potential contribution of the sector is high given the un/under utilised potential particularly from the aquaculture sub-sector.

# 2.1.2 Estimated Demand for Fish

- (i) In order to maintain present per caput fish consumption levels of around 10 kilograms per year by the year 2015 when a population of 15.2 million is forecast, 152,000 nes of food fish will be required.
- (ii) Zambia has a recommended maximum export allowable per year at 120,000 tonnes of food fish hence 140,000 tonnes of fish will be required by 2015 to meet both domestic consumption at current levels and export requirements.
- (iii) This implies invariably that an increase of 82,000 tonnes in fish production over and above current level of 70,000 tonnes will be necessary by the year 2015.

Such an increase in the production of food fish is considered feasible if aquaculture or fish farming production is dramatically increased in the next 10 years. This should be coupled concomitantly with improvements in the conservation and management of capture fisheries through stock rebuilding, targeting of under exploited fish stocks, more rational harvesting practices and wider application of fish food technology to reduce post harvest losses

## 2.1.3 Fish processing and marketing

The marketing of fish in Zambia is unorganised and often putting fishermen in a very venerable situation. The manner in which fish marketing is conducted kes it very difficult for the sector to contribute effectively to poverty reduction particularly in rural areas.

In nearly all fishery areas fishers are visited by fish traders most of whom are women from urban areas. It is also observed that the relationship between the fishermen and the female fish traders is not purely a business one pe fish traders buy fish from fishermen process it and then transport the fish to urban areas where they sell it to retailers in markets. In some situations the traders retail the fish in markets. It is very rare for fishers to transport the fish to markets in urban areas.

The situation is not very different in the industrial fishery. Fish traders buy fish from the industrial shermen particularly the Kapenta, (*Limnothrissa miodon* and *Stolothrissa tanganicae*) which is in most situations dried by fishing companies. The fish is then transported to markets in urban centres. Very few industrial fishing companies have outlets for selling fish in urban areas.

On Lake Mweru - Luapula two companies were established that specialise in purchasing fish from fishermen. Companies freeze the fish and then transport it to urban centres where it is sold to retailers. In fishing camps where commercial companies have fish buying points it is the companies determine prices offered to fishers.

Several studies have demonstrated that large percentage of the profits, in the fisheries sector, are made by the trader ho in many situations are not resident in fishery areas. This may therefore be the main reason why the fisheries sector cannot make a significant impact to the development and reduction of poverty in rural areas.

### 2.1.4 Fisheries and rural livelihoods

In Zambia, most of the fisher folk communities live on land that does not belong to them. This builds some degree of insecurity of tenure and therefore negatively impacts on \*community development. The low rate of literacy (national average of %) is one of the major handicaps to the participation of communities in fisheries activities is calls for the need to invest in public education and community management programs. In general, the direction of change towards the industrialisation and modernisation of the fisheries sector promotes the replacement of individual and family fishing enterprises by larger and more commercial operators where this can be achieved in a sustainable manner.

In this connection an educated and well informed fishing community is a requirement for the development of the fisheries sector. Investment in education as well as sensitizing fishing communities should be viewed as supporting development of the fishing sector. Education

programmes and community sensitization should be seen as integral component of the Fisheries policy

### 2.1.5 Fisheries and biodiversity

Fish species contribute greatly to aquatic biodiversity in Zambia. However, since the introduction of Nile Tilapia, (*Oreochromis niloticus*) and other aquatic in water bodies of Zambia such as Lake Kariba, the Kafue Floodplains, there have been concerns regarding deterioration of the fisheries biodiversity. There is therefore, a need to regulate future introductions of fish and other aquatic species across water bodies.

# 2. 2 The Need for the New Fisheries Policy

It is apparent that the stocks of important commercial fish species are declining. Un controlled access and increased population is exerting tremendous pressure on the resources in the absence of effective Government oversight. The aquatic systems have been characterised by increased pollution load and siltation as a result of increased population in the catchment and urbanisation. The bio-diversity of fish may have been affected by the introduction of non endemic fish species and exotic aquatic species such as the water hyacinth. The demands for quality fish from both foreign and domestic markets are stringent.

The administration in the sector has been characterised by lack of community participation and operational central oversight which has lead to inadequate enforcement levels. This has resulted in over-exploitation of important fish stocks in most fishery areas.

During the last twenty years, Institutional arrangement for the management of the fisheries sector has changed on several occasions and sometimes reversing earlier decisions. There is also indication that changes to structural arrangements of the Department of Fisheries are to the advantage of public officers of the Department and not the fisheries sector. Such erratic changes to the organisational structure of the Department in particular can be attributed to lack of a comprehensive policy for fisheries management and development.

Over the past decade the processing and export of fish have attracted private sector investment in the fish industry. Frequent fish bans both in the domestic and foreign markets have affected fish trade. Clearly there is an urgent need for a paradigm shift in the way fisheries should be regulated and managed. Policies such as the Decentralisation Policy, Public Service Reform Programme, the Poverty Reduction Strategy, the Agriculture Sector Investment Programme, the New Agriculture Policy and the Constitution have also influenced the development agenda that necessitates the revision and/or the introduction of new sector policies.

Since the mid 1990s, the Department of Fisheries has been trying to revise and update the Fisheries Act even with assistance from the Food and Agriculture Organization (FAO) of the United Nations. Practically, very little progress has been made in this regard. In 2007, the Department of Fisheries managed to process a Fisheries Amendment Bill which is still based on the 1974 Act. The original intention however was to repeal the 1974 Act and replace with one that conforms with resent in place new fisheries legislation can be attributed to lack of comprehensive national Fisheries Policy.

Additionally, financial resource allocation to the sector has been very low to the extent that implementation of plans and programmes has become difficult. A new policy environment could spur resources for the administration of the sector. Lastly, the Fisheries Act (1974), which is still the principal legislation for managing fisheries, is not in keeping with modern concepts of holistic fisheries management, utilization and conservation let alone the current policy trends mentioned above. A clear and comprehensive National Fisheries Policy is an essential prerequisite for the preparation of a new legislation to effectively address sector concerns.

## 2.3 KEY ISSUES IN THE FISHERIES SECTOR

# 2.3.1 Key issues the Fisheries management and Development

The key issues that are currently faced by the fisheries sector in Zambia are:-

- Resource depletion through over-fishing aggravated by use of destructive fishing gear and methods;
- ii) Eutrophication of the lakes and other forms of pollution;
- iii) Infestation and rapid spread of water weeds and the environmental impacts of the different control options;
- iv) Inadequate information on the fisheries resources and the state of the aquatic environmental to guide management decisions and planning;
- v) Inappropriate regulatory framework; and
- vi) Inadequate funding for the fisheries sector activities.

# 2.3.2 Causes of Fisheries Sector Problems

The underlying causes for these issues are:-

- (i) Inappropriate mechanisms for controlling access to fisheries resources;
- (ii) Inadequate monitoring, extension and enforcement mechanisms;
- (iii) Inadequate mobilisation and involvement of the communities in development and management of fisheries resources;
- (iv) ill-equipped extension services and inadequate research work both of which critically hinder capture fisheries and aquaculture development;
- (v) Inadequate fisheries infrastructure; and an
- (vi) Absence of and effective regional mechanisms for co-operation and management of some of the shared water especially; Mweru-Luapula.

# 2.4 The Lead Agency and Inter-Sector Linkages

Fisheries in Zambia was run on the classic centralised model, with teams out-posted in Provincial and District officers policing the use of the resource and offering advice and support to fishing communities. The Centre, the Minister and the Director of Fisheries make policy decisions and drafted laws to support implementation. These tasks are not, in general, executed in a consultative manner, but the system has the advantage of applying a consistency of approach across widely differing administrative and ecological areas. Information gathering is rarely comprehensive, but the data generated reached the centre and is collated to give the best national overview possible.

Decentralisation in fisheries management has so been implemented at an informal and pilot level. Several donor funded projects have adopted a practice where the Local Governments in the area and resource users are more directly responsible for the resources in their administrative areas and consultation is becoming the norm. On the other hand, since resources are often shared between administrative regions, there is no cohesive means of coordination and addressing the management needs. In addition the Fisheries Act to some degree is still centralised and does not permit local communities to take full charge of the management of their fishery resources. One of the objectives of this policy therefore is to encourage formulation of fisheries legislation where local communities can eventually take full control of the management of fisheries in their areas.

## 2.5 The Role of Local Governments

The District acts as the primary link with the Centre. Policies, laws and finances are (generally) cascaded down to the Sub-County d lower level administrative units. In reality the District has become the focal point of development aimed at reducing poverty through improved governance. It is at this level that the day to day hands-on business of interaction with fisheries communities and their institutions is focused. The role of Local Governments in fisheries under the context of decentralization includes:

- (a) Planning for fishery community development and poverty reduction;
- (b) Seeking funding for fishery community led development projects;
- (c) Ensuring compliance with national laws and policies on water bodies;
- (d) Adapting such laws and policies to local needs
- (e) Establishing forums for effective management of resources shared by more than one District;
- (f) Promoting co-management and responsibility sharing with local communities;
- (g) Supporting the regulation of major international water bodies in partnership with central authorities where appropriate;
- (h) Building capacity and provide support and guidance to fisheries communities in livelihoods enhancement strategies;
- (i) Representing the views of communities at national level through the central fisheries body and through the Department of Fisheries;
- (j) Collecting the revenues necessary to ensure sustainable Local Government, and to reinvest in fisheries development.
- (k) Enacting appropriate laws for the sub-sector. Identified constraints faced by Local Governments (LG) in addressing these roles include:

Identified constraints faced by Provincial and District administrations in addressing these roles include:

(a) Limited technical capacity and experience in fisheries planning management and development;

- (b) Lack of clarity over responsibilities in relation to the Centr Department of Fisheries and the Ministry;
- (c) Limited integration of available resources to address overlapping responsibilities (e.g. wetlands, wildlife and fisheries regulations);
- (d) Limited support from central institutions; no clear harmonisation of the respective requirements of the Constitution and the Local Government Act in the context of renewable natural resources management;
- (e) Limited discretionary resources, and little incentive or guidance to invest in improved fisheries livelihoods;
- (f) Poor management of revenue collection from the sector; only a small percentage of due revenues are collected.

Any change in the institutional arrangements of the fisheries sector in Zambia will need to address these constraints, primarily through a well-defined partnership between the Centre and Provincial, District and communities. Given the shared nature of the resources d their vulnerability to overexploitation, such partnerships are the single most critical element in any new policy.

# 3.0 The Vision

## 3.1 The National Vision

Zambia has a national vision for modernising development sectors by the year 2030. Zambia's Vision 2030 embodies strategic actions, which will guide Government policies over the next twenty years. In this vision, some strategic frameworks have been included and they relate to the development and management of the fisheries sector for sustainable management and development.

# 3.2 The Vision for Fisheries Development

The national vision for the fisheries sector is, "to attain sustainable exploitation of the fishery resources at the highest possible levels without compromising availability of fish for both present and future generations and without degrading the environment".

Given the strategic actions of the Vision 2030 and the national development objectives embedded in the current broad policy frameworks namely:

- The Agriculture Sector Policy
- The 2030 Vision
- The Public Service Reform Programme (PSRP)
- The National Environmental Action Plan (NEAP),
- The Biodiversity Strategy Action Plan (BSAP) and
- The Fifth National Development Plan

Zambia's fisheries development objectives embrace the following dimensions and aspirations:

- (i) a flourishing fisheries and aquaculture sector in which over 120,000 tonnes of fish are harvested annually from stable populations of wild fish stocks living in healthy aquatic ecosystems and modern aquaculture technologies;
- (ii) fully modernised and highly skilled fisher folk communities that have high human development indicators (access to potable water exceeding 80%, infant mortality of less than 40%, universal school enrolment, high standard of hygiene and sanitation, clean and attractive environment) that use appropriate modern and efficient fishing gears and equipment;
- (iii) participatory fisheries management arrangements that build on community and stakeholder structures leading to the generation of adequate incomes to alleviate and prevent poverty particularly for rural communities in fishery areas;
- (iv) a sustainable increase in the consumption of fish by the national population achieved through better and improved resource management, better fish handling and marketing with a per-capita fish consumption of not less than 10 kilograms;
- (v) a fully developed and productive aquaculture systems for all water bodies in agro-ecological zones and integrated into agro-farming systems;
- (vi) self sufficiency in the production of fish and fish products based on well managed capture fisheries and developed aquaculture;
- v) increased trade in fish and fish products within the country and
- vi) a sustainable basket of exports of fish, fish products and other aquatic products with foreign exchange earning exceeding US\$ 200m per annum.

# 4.0 The Rationale

The overall policy framework for the National Fisheries Policy is provided by the (National) Constitution of Zambia of 1994. National Objectives and Directive Principles of State Policy places an obligation on the State to protect important natural resources including land, water,

wetlands, minerals, oil, fauna and flora on behalf of the people of the country (Zambia). Fishes are ichthyo fauna that must therefore be protected.

In the Draft constitution provisions have been made for the protection of aquatic habitats and conservation of all natural resources including fishery resources. In addition provisions have been made for the involvement of riparian communities in the management and conservation of natural resources.

Specific sectoral and inter-sectoral policies that are relevant to the National Fisheries Policy include:

- (a). The National Environmental Management Policy (1994) which aims at facilitating a comprehensive and coordinated approach to solving environmental problems in Zambia. The policy emphasises the need to conserve biological resources including fisheries.
- (b). The Wildlife Policy (1995) recognises fishes as a form of wildlife. The objective of the Wildlife Policy is to ensure the perpetuity, for Zambia's and the global community, the wildlife resources within and outside the protected areas and to enable the people of the Republic of Zambia derive benefits from wildlife resources. The policy builds into the fisheries policy in terms of creating strong links that are associated with exploitation of wild fish species.
- (c). The National Wetlands Policy was adopted in 2000 and compliments the goals and objectives of the National Environmental Policy (NEAP). The aim of the policy among others, is to maintain an optimum diversity of uses and users and consideration for other stakeholders when using the wetland. Wetlands are habitats as well as breeding and nursery grounds for fish.
- (d). The Agriculture Policy is built on the overall national objective of poverty reduction through increasing household income. The Policy takes cognisance of full macroeconomic policy objectives and aims at transforming the rural household farmer including the fisher-folk to a better standard of living. The plan identifies and prioritises a number of key areas for government interventions in the medium term. The plan provides strong supportive environment for the National Fisheries Policy.
- (e). The Water Resources Master Plan of 1994 takes into account economic liberalisation, privatisation and decentralisation reforms. It recognises good quality water for the growth of the water biota including fish. The plans recognise the importance of water in the development of aquaculture and define water requirements for aquaculture development.

# 5.0 The Guiding Principles

## 5.1 ZAMBIAS INTERNATIONAL OBLIGATIONS

Zambia has a number of obligations under international law that are relevant to the fisheries sector and the National Fisheries Policy.

# 5.2 The Convention on Biological Diversity

Zambia is a party to the Convention on Biological Diversity (CBD) and is required to develop national strategies, plans or programs for the conservation and sustainable use of biological diversity. In 1998, Zambia undertook steps in this regard and prepared the Biodiversity Strategy Action Plan (BSAP).

#### 5.3 The Ramsar Convention

The Convention on wetlands, signed in Ramsar, Iran in 1971, is an intergovernmental treaty, which provides the framework for the national action and international co-operation for the conservation and wise use of wetlands and their resources. Zambia is a signatory to the convention and the conservation of wetlands with its habitats is indeed important for the fisheries sector where the fisheries biodiversity rest. The Convention acts as back-up support to the National Wildlife Policy and has implication for Fisheries conservation and development. The relevant articles in the Convention are important for the successful implementation of the policy.

# 5.4 The Convention on International Trade in Endangered Species

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was entered into by states to regulate the international wildlife trade worth billions of dollars annually. Unregulated trade had caused massive declines in the numbers of many species and ecological biodiversity. It entered into force in 1975 and now has a membership of 146 countries. These countries act by banning commercial international trade in an agreed list of endangered species and by regulating and monitoring trade in others that might become endangered. Zambia is one of the countries that ratified the convention. The treaty gives support to several policies that affect management and protection of living resources as it contains a number of clauses relevant to conservation and trade in endangered fishes.

# 5.5 Protocol for the Management of the Fisheries of Lake Kariba and Transboundary Waters of the Zambezi River

One of the products of the Zambia / Zimbabwe SADC Fisheries Project is the development of the fisheries protocol with Zimbabwe which is for the management of the Fisheries of Lake Kariba and Transboundary Waters of the Zambezi River.

This protocol calls for the establishment of structures: committees at both technical and policy levels for the management of the fisheries of Lake Kariba. The objective of the Protocol is to create the required framework for co-operation in management and development of Lake Kariba Fishery and shared fisheries of the Zambezi River. Implementation of this protocol has provided the basis for developing collaborative arrangements to addressing problems of transboundary fisheries.

# 5.6 Convention for the Establishment of the Lake Tanganyika Authority

Together with riparian states, Burundi, the Democratic Rep c of Congo and Tanzania, Zambia has adopted the convention that establishes the Lake Tanganyika Authority. The objectives of the Convention are to foster cooperation among the parties; harmonise national measures for the sustainable utilization of the living resources of Lake Tanganyika; and, develop and adopt conservation and management measures. Evidently, given the importance of the Lake Tanganyika fishery, the National Fisheries Policy must take account of Zambia's obligations under this convention.

# 5.7 The FAO Code of Conduct for Responsible Fisheries 1995

This Code was adopted by consensus at the 28<sup>th</sup> Session of the FAO Conference in October 1995. It is not a mandatory Code but has a strong persuasive effect on administrators, policy makers and lawmakers of states who are member of FAO. The Code provides principles and standards applicable to the conservation, management and development of fisheries. It also covers the capture and processing of the trade in fish and fish products, fishing operations, aquaculture and fisheries research. Its articles touch on many likely provisions that will be contained in a new fisheries law and this policy.

# 5.8 National Development Priorities

The following national development priorities and general principles inform and guide the National Fisheries Policy. The National Fisheries Policy is guided by the following National Development priorities

(a). *National objectives:* the policy is consistent with the implementation of the key objectives in the Constitution of the Zambia.

- (b). *Poverty eradication:* the fisheries sector can contribute to poverty alleviation, modernisation regional and national development. There will be full consideration of poverty eradication in connection will all plans and actions for the fisheries sector.
- (d). Decentralisation: in line with the national Constitution, fisheries resources will be managed through devolved responsibility to Local communities whenever practical or advisable and under careful regulation. Revenue sharing between central district administration will be developed to ensure local benefits and responsibility, consistent with adequate investment in sustainable fisheries management.
- (e). Gender and equity: fisheries development will include the active participation of women and the youth. There will be equitable representation in decision making, shared responsibilities and benefit sharing by all groups.
- (f). Ensure community participation: the policy supports public participation in the management of the fisheries resources and ensures equitable sharing of benefits. This will also ensure respect for traditional cultures and knowledge, access to resources, and due regard to gender and equity.
- (g). *International commitments:* the government recognises and confirms its commitments regarding fisheries under international law as outlined.
- (h). *National accounting*: true cost and benefit valuations will be used when defining economic policies, to account for full environmental, economic and social values of fish.
- (i). *Political support*: the government recognises that the success of sustainable fisheries management will be directly related to continuing political support at national and district levels.
- (j). *NGOs:* non-governmental organisations and community based organisations and associations represent a unique vehicle for introducing participatory fisheries management practices.

#### The key general principles are:

- a) The principle of sustainable development: the policy seeks to ensure that the management and development of the fisheries sector takes account of the concepts of both inter-generation equity and intra-generation equity.
- b) The precautionary principle: a key element of the FAO Code of Conduct for Responsible Fisheries, the precautionary principle recognises the scientific uncertainty inherent in capture fisheries management and species introductions. Fisheries management

measures should be based on the best scientific evidence available. Lack of full scientific certainty should not be used as a reason for postponing or failing to take effective action where there are risks of serious or irreversible harm to fish stocks and/or habitats.

c) The user pays principle (user charges): the user pays principle provides that those who use or benefit from natural resources should contribute towards the costs of managing those resources, for example through the introduction of new and sustainable funding mechanisms for resource management.

# 6.0 Policy Objectives

# 6.1 Fisheries Sector Goal

The overall fisheries sector goal is to ensure increased and sustainable fish production and utilisation by properly managing capture fisheries, promoting aquaculture and reducing post harvest losses.

# 6.2 Policy Objectives and Strategies

## 6.2.1 Sustainable Management and Development of Fisheries

Fisheries will be managed and developed to promote socially, economically and environmentally sustainable uses and development of the resources so as to meet the needs of present generations without compromising the ability of future generations to meet their needs.

## **Explanation**

Many of fisheries of Zambia are currently in a poor condition due to: over-exploitation; use of unsustainable fishing methods and practices; and environmental degradation. There is also a general lack of information on the capacity of most fish stocks resulting in poor fishery management practices. Apart from being a major food source, fisheries also provide a livelihood to many disadvantaged communities particularly in rural and remote parts of the country.

In the past Zambian fisheries were managed and exploited to meet food requirements of urban communities and employment requirements of the lowly skilled rural communities in fishery areas. There is urgent need for a paradigm shift to that focussing on biological aspects of fisheries including economic as well as environmental concerns.

#### **POLICY OBJECTIVES**

- 1. To secure the long term future of the fisheries sector to ensure that it contributes in a sustainable manner to the national economy.
- 2. To protect the biological diversity of fisheries and the life support system that defines major fisheries.
- 3. To improve livelihoods and alleviate poverty in fishing communities taking account of the special needs of women, youth and other disadvantaged groups.
- 4. To co-operate with neighbouring states and international organisations in the management of trans-boundary fisheries resources.

#### **POLICY STRATEGIES**

#### The Central Government role would be to:

- i) enact appropriate legislation to give effect to this policy;
- ii) Set aside funds and create an enabling environment for the implementation of activities to initiate programmes under this policy
- iii) Review existing approaches to the control of access to fisheries (such as licensing) to ensure the equitable use of fisheries resources by those who are most dependent on them, making improvements as appropriate;
- iv) Establish appropriate mechanisms to regulate and control the introduction of species on a precautionary basis;
- v) Take measures to ensure that fisheries management institutions have sufficient resources to accomplish their tasks;
- vi) Support and participate in bilateral and regional and international programmes and projects for the development of fisheries and management of shared water bodies;
- viii) Reorganise the fisheries management institutions to facilitate maximum participation of local communities in fishery areas in conformity with the principle for the devolution of fishery management responsibilities to local communities and the national policy for decentralization;

- ix) Ensure the preparation and periodic review of policies, plans, standards and guidelines for sustainable fisheries management and development at national, and community levels; and
- x) Periodically review this National Fisheries Policy and its implementation, making such amendments and modifications as are necessary for good management of fisheries.

#### The Local Governments role at Provincial and District levels would be to:

- enact/pass appropriate bye-laws for identified district fisheries concerns to give effect to the policy;
- ii) Set aside funds for district fisheries management and development
- iii) Undertake licensing of fishing activities devolved from the Centre as a tool to control access in line with the fisheries policy framework;
- iv) Implement stocking programmes in Dams, reservoirs and small water bodies with participation of the communities and in a manner that does not degrade fish biodiversity;
- v) Prepare district plans, standards and guidelines for sustainable development and utilisation of the fisheries tailored to local situation but in consonance with national policy.
- vi) Ensure effective participation and involvement of all stakeholders in the formulation of fisheries polices and management regulations.

#### The Communities or Community Based Institutions role would be to:

- enact appropriate regulations for local neighbourhood fisheries concerns in conformity with bye-laws or national fisheries legislation;
- ii) Manage and provide neighbourhood oversight on fisheries and related activities at landing sites;
- iii) Raise funds from fish landing sites enterprises and set aside a fraction for neighbourhood beach management;
- iv) Put in place sanitary facilities or amenities and maintain cleanliness at beaches and other fish landing sites

v) Link with local governments to address extra-community concerns and lobby for neighbourhood landing site development.

#### The Civil Society role would be to:

- i) Mobilise and sensitise communities Provincial and District Administrations on the need for sustainable management and development of the local fisheries;
- ii) Identify and characterise the various interests and concerns in the fisheries and mobilise all for sustainable fisheries management and development;
- iii) Advocate for responsible fisheries governance at national, Provincial and District and community levels.

#### The Private Sector role would be to:

- i) invest in areas which promotes sustainable fisheries development and reduce poverty;
- ii) Introduce profitable technologies that promote sustainable and wise use of fisheries resources taking into account biological, social and environmental concerns;
- iii) Partner with communities or community organisations, local governments and central government and enterprises that promote sustainable fisheries and reduce poverty.

## 6.2.2 Decentralisation and Community Participation in Fisheries Management

Stakeholders, resident in fishery areas will be involved in the management of fisheries by devolving routine decision-making responsibilities and fish conservation programmes to local communities in fishery areas.

#### **Explanation**

Current fisheries management practices are largely based on command and control and centralised fisheries management approach inherited from the colonial administration and enforced through the criminal law procedures. Experience in Zambia and elsewhere in the fisheries forestry and wildlife sectors clearly shows that this approach is both costly and ineffective. Not effectively consulting communities and stakeholders results in high frequencies of inappropriate fishery management regulations.

In addition the failure to effectively consult stakeholders and communities means rules established for management of fisheries are often perceived to lack legitimacy, thus lessening chances of compliance. Non-compliance also leads to increased confrontation between the state and resource users, higher enforcement costs which governments may be hard pressed to meet and finally degradation of the resource. Effectively consulting and empowering communities in the management of fisheries coupled with central oversight to check excesses will lead to more effective management of country's fisheries resources.

#### **POLICY OBJECTIVES**

- 1. To achieve more effective fisheries management that takes account of paradigm shifts in both the fisheries sector and the wider policy environment and to ensure that fisheries resources contribute to sustainable rural livelihoods, poverty alleviation and positive contribution of the fisheries sector to the local and national economy.
- 2. To promote and support local government and communities in assuming responsibilities in respect of sustainable fisheries resource management, development and utilisation.
- 3. To ensure increasing fisheries resources contribution to local governments, community revenues, and household incomes.
- 4. To advance the involvement of women, youth and less advantaged members of society in fisheries resources management and development.

## **POLICY STRATEGIES**

The Central Government would be to:

- i) Create the enabling environment by legislation to permit the establishment of fisheries management institutions and structures at local government community levels to ensure the effective participation of stakeholders in the fisheries management;
- ii) Strengthen and re-orientate the role and structure of the fisheries management institution in accordance with government policy to support decentralised management involving fisheries communities;
- iii) Devolve some decision-making responsibilities to the appropriate levels so as to permit local governments and communities to engage in fisheries management and development activities in accordance with national policies and guidelines;

- iv) Provide legal recognition of fisheries community and their rights of management over fisheries resources in fishery areas;
- v) Ensure the provision of appropriate support services to fisheries management institutions at local government and community levels.
- vi) Train government officials and community leaders in the principles, practices and benefits of community based management.

#### The Local Governments role at Provincial and District levels would be to:

- i) enact bye-laws to permit the establishment of fisheries management structures and institutions and devolve some decision making powers to communities or community based institutions;
- ii) Facilitate strengthening of district fisheries management units to efficiently co-ordinate decentralised fisheries services;
- iii) Provide legal recognition in the district fisheries ordinance to communities and provide for their rights of neighbourhood oversight.

## The Communities or Community based institutions role would be to:

- i) Enact bye-laws recognising community based institutions and linkage with Local Government services for fisheries management;
- ii) Enact bye-laws on best local practices and management of local fishing; sanitary (hygienic concerns) in consonance with district ordinances or national laws;
- iii) Strengthen beach management institutions for management of landing beaches and neighbourhood fishing.

## The Civil Society (NGOs/CBOs) role would be to:

- i) Mobilise and advise local communities to enact fisheries bye-laws;
- ii) Sensitise all stakeholders on roles and responsibilities of Local Communities in fisheries management at various levels as provided in the policy.

#### The Private Sector would be to:

- i) consult Local Governments/communities on fisheries related investments in their areas and define rights and obligations for all parties;
- ii) forge partnership with Local Governments/Communities in win-win ventures

## 6.2.3 Inter - District, Fishery and community co-operation in fisheries management

Districts, communities and community organisations involved in fisheries management will cooperate in the management of shared fisheries and aquatic ecosystems.

## **Explanation**

Most water-bodies are shared between two or more Provinces Districts, Chiefdoms and communities. As with any shared resource a harmonised approach to management is necessary, as are mechanisms to resolve conflicts and competition between communities in respect of access to and use of the resource.

Although communities and local Governments may try their best to work co-operatively, experience shows that formal co-operative mechanisms and institutional arrangements are necessary for effective management of shared fisheries resources. It is also important that such co-operative mechanisms and arrangements receive full recognition in the policy and by the national Government.

#### **POLICY OBJECTIVES**

1. To ensure the effective management of shared fisheries and aquatic ecosystems within the country.

#### The Central Government role would be to:

- i) Ensure that the necessary legal framework is in place to permit the establishment of effective inter-district and intercommunity fisheries management arrangements;
- ii) Give powers to inter-district fisheries management arrangements and structures to raise and retain a portion of revenue to facilitate their operations;
- iii) Provide technical and other support for the establishment and operation of inter-district and inter-community fisheries management arrangements.

#### The Local Governments role at Provincial and District levels would be to:

- i) Enact bye-laws for districts, and communities that share common fisheries resource to co-operate and co-ordinate with neighbours as partners;
- ii) Facilitate inter-district fisheries management mechanisms with sustainable funding arrangements for joint planned activities.

## The Civil Society (NGOs/CBOs) role would be to:

i) Mobilise and sensitise Districts and communities that share common fisheries resources to harmonise fisheries management measures.

#### Private Sector role would be to:

- i) Provide financial support to Districts and communities that exhibit best joint management practices.
- 2. To support establishment of transparent and accountable inter-district, and intercommunity fisheries management institutions which permit the effective participation of all stakeholders.
- 3. To support the development of harmonised approaches to the management and development of shared fisheries and aquatic resources.
- 4. To provide mechanisms for preventing and resolving conflicts regarding shared fisheries resources, including such matters as access and revenue sharing.

#### **6.2.4** Administration and Funding Mechanisms

Administration of the fisheries sector and funding mechanisms suitable for decentralised fisheries management to be developed and implemented in collaboration with Provincial, District administrations NGOs CBOs and local communities.

#### Explanation

A decentralised approach to fisheries management with effective central oversight entails the establishment of new fisheries management arrangements and institutions. The central agency,

the Headquarters of the Department of fisheries, must have direct control over and be directly accountable for key regulatory functions including coordination. To be effective, such institutions need to have adequate financial and other resources. While such resources can be provided from central Government funds, local institutions may be both more efficient and more flexible if they can generate their own funds from utilisation of the fisheries related to their management tasks, such as resource rents and levies. New fisheries management institutions and units at District and community levels must also be functionally relevant to the stakeholders and communities whom they represent.

Involving stakeholders in the institutional design process is an important factor in achieving a workable and functional financial structure. The new dispensation for fisheries management will entail an expanded role for the Department of Fisheries which will include: developing national standards; coordinating among fisheries management units at fishery level; advising communities on fisheries management practices etc. In order to be able to respond promptly to the needs of decentralised institutions and to international concerns, the new Department of Fisheries will in turn need to have the administrative freedom conferred by greater independence. Binding this framework together will be new legislation that clearly sets out the competencies of the various structures and institutions and the mechanisms for monitoring, evaluation and dispute resolution.

#### **POLICY OBJECTIVES**

- 1. To promote the development of a decentralised fisheries management and administration structures at national, inter-district, district, and community levels that are sustainable, in terms of their functional relevance to stakeholders and their capacity to generate and/or attract sufficient resources for their operations.
- To establish a self-sustaining semi-autonomous Fisheries Management Authority or Fisheries management Agency that will effectively regulate the sector against national sectoral policies, plans and standards; support the training and monitoring of fisheries management institutions, and outputs and performance of such institutions on the basis of jointly developed sector guidelines without much dependence on the central Government.
- 3. To ensure that new and additional income sources and funding mechanisms are made available to fisheries management institutions.
- 4. To establish mechanisms for conflict and dispute resolution among institutions as well as fisheries resource users.

### **POLICY STRATEGIES**

#### The Central Government role would be to:

- i) Involve stakeholders in the design of new fisheries management institutions;
- ii) enact appropriate legislation for institutional reform, to establish transparent fisheries management institutions and structures, including the fisheries central agency, that are accountable and which promote equitable benefit sharing acquired from utilization of the fisheries resources;
- build capacity and provide suitable training and resources, including human resources, to enable fisheries management institutions at all levels to account for the revenues and expenditure in a transparent manner to communities and the Central fisheries Management Authority or Agency;
- iv) Establish sustainable direct and indirect funding mechanisms to support community fisheries management institutions;
- v) Identify additional potential direct and indirect sources of income, such as fish levies, for fisheries management institutions; and
- vi) Establish monitoring systems and performance indicators to measure the sustainability of new fisheries funding and administrative arrangements.

#### The Local Governments role at Provincial and District levels would be to:

- i) recognise traditional and other fisheries management institutions and facilitate plans for them to generate funds for fisheries management;
- ii) Identify training needs for fisheries management institutions (e.g. village and zone fisheries management Committees) in financial management;
- iii) Establish and run funding mechanisms to support fisheries management especially cost recovery from the fisheries itself at local levels;
- iv) Establish forums for consultations amongst fisheries management institutions.

#### The Communities or Community based institutions role would be to:

- register traditional or other fisheries management institutions with Fisheries
   Management Authority or Agency;
- ii) Participate in rules setting and definition of roles of traditional or other fisheries institutions;
- iii) Participate in recurrent decision making consultations in institutional fora established.

### The Civil society (NGOs/CBOs) role would be to:

- i) Support traditional or other fisheries institutions to facilitate consultations and decision making and recording financial transactions;
- ii) Support local registration of grass-root fisheries institutions revolving around management, marketing and other livelihood concerns.

#### 6.2.5 Investment in Fisheries

Public, private sector and community based investment in the fisheries sector that is environmentally, socially and economically sustainable will be promoted.

#### **Explanation**

Investment is necessary if there is to be growth in Zambia's fisheries sector and should be encouraged. In accordance with Government policies on investment, public investment would be limited to infrastructure of a public nature. However, such investments could also be made on a partnership basis by the private sector and community based groups. The development of micro credit schemes will be essential to enable community groups and disadvantaged groups to benefit from investment opportunities.

However, care is needed to avoid over-investment that may lead to overcapacity and environmental degradation. New fisheries investments must therefore be economically, socially and environmentally sustainable and authorised by Fisheries management Authority and relevant Institutions

### **POLICY OBJECTIVES**

- 1. To increase the contribution of the fisheries sector to the national economy, increase the incomes and profits of those involved in the sector and safeguard the livelihoods of poor people and disadvantaged groups particularly in fishery areas.
- 2. To promote public-private investment partnerships (PPP) that equitably benefits both fishing communities, including the poorest and most vulnerable members of those communities, as well as the private investor.
- 3. To develop an enabling environment that promotes the establishment and growth of community based private enterprises in the fisheries sector.
- 4. To identify and promote suitable areas for economically, socially and environmentally sustainable investments by commercial investors.

### **POLICY STRATEGIES**

#### The Central Government role would be to:

- Establish administrative structure, committees at national level representing stakeholders to process investment in the sector
- ii) Remove constraints for investment in the fisheries sector;
- iii) Identify and implement institutional reforms needed to simplify and streamline decision making processes regarding investment applications;
- iv) Promote the development of credit and micro-credit schemes to encourage investment in fisheries and which also enable the poor and vulnerable to obtain access to credit;
- v) Put in place a policy environment that promotes the growth of community based enterprises;
- (vi) Provide advice to districts and fisheries communities on PPP arrangements/modalities;
- (vii) Identify and support aspects of proposed local infrastructure development plans that may encourage private investment;
- viii) Establish systems for the routine dissemination of advice to fisheries management institutions from inter-district to community level and to individual and community enterprises on sources of public investment funding; and
- ix) Promote investments in commercial intensive aquaculture and recreational fisheries that also benefit communities.

#### The Local Governments role at Provincial and District levels would be to:

- i) offer investors in fisheries and aquaculture incentives for identified ventures that are socially and environmentally sustainable;
- ii) Offer concessions for management and utilisation of fisheries within jurisdiction that present a "win" for communities, LGs and the investor;
- iii) Negotiate terms and conditions for fisheries concessions or contracts for management of infrastructures including Built, Own Operate and Transfer (BOOT) investments.
- iv) Ensure the availability of the socially and environmentally feasible sites for aquaculture development within their districts or provinces.

### The communities or Community based Institutions role would be to:

- i) Participate in negotiating terms, conditions and concessions for fisheries investments to ensure community concerns are addressed;
- ii) Participate in recurrent monitoring and oversight of investments to ensure it is in consonance with community interests;
- iv) Provide services and labour force required by local investments and generally take advantage to acquire new skills introduced by investor

#### **6.2.6** Planning and Policy Making

Participatory planning and policy-making by stakeholders in fishery areas will form the basis of fisheries management and development.

## **Explanation**

Each water body, and each fishery area, is different and needs its own management design. In addition, such are the complex dynamics of inland fisheries that the outcomes of management interventions cannot be accurately predicted, and wide fluctuations in resource levels can be caused by outside impacts such as floods pollution. Fisheries management must therefore be based on a planning and policy making process that is itself dynamic and capable of responding rapidly and appropriately to changing circumstances.

Involvement of stakeholders in planning and policymaking processes leads to better decision making and offers the opportunity for more timely management responses to rapid environmental changes. Fisheries management must go beyond the biology of fish stocks to look at social, economic, environmental and cultural impacts. Sometimes hard management decisions may have to be made, such as a decision to temporarily close a fishery. Transparent and open processes are more likely to result in such decisions being considered acceptable by those directly affected.

#### **POLICY OBJECTIVES**

- 1. To ensure effective decision making processes and active participation of stakeholders in fisheries management designs.
- 2. To support fisheries management plans based on: biological, socio-economic, environmental and cultural aspects of stakeholders.
- 3. To promote equity and accountability in decision-making.

#### **POLICY STRATEGIES**

#### The Central Government role would be to:

- i) Enact new legislation to ensure that fisheries planning for each fishery area is clearly documented and formulated in full consultation with stake-holders;
- ii) Require fisheries management activities to take place on the basis of local, district, inter-district and national fisheries management plans that will be based on the precautionary approach;
- iii) Support local governments and communities to prepare local, district and inter-district fisheries management plans which will conform to national minimum standards and guidelines for fisheries management;
- iv) Ensure that national, inter-district, district and local fisheries management plans and policies are subject to periodic review;
- v) Ensure that stakeholders have access to adequate information to enable them to meaningfully participate in planning and policy making processes;

- vi) Co-ordinate fisheries management policy and plan making with other sectoral planning and policy activities at all appropriate levels;
- vii) Create greater awareness among government officials and the local community of the benefits of adopting participatory approaches to increase the sustainability of fisheries resources; and
- viii) Ensure effective representation and participation of the disadvantaged and the poorer sections of the community, particularly the youth, women and disabled persons in the planning processes at all levels.

#### The Local Governments role at Provincial and District levels would be to::

- i) Enact ordinances that ensure participation of relevant stakeholders in the policy and planning processes in local fisheries management;
- ii) Encourage the involvement of the fisher community in fishery plan formulation and implementation through their relevant community institutions and administrative structures.

### The Community or community organisations role would be to:

- i) Develop and implement plans for their landing site and neighbourhood fisheries management.
- ii) Implement fisheries, wetlands, and other natural resource management policies

#### **6.2.7** Information

Systems for the collection, compilation, analysis, storage and dissemination of information are vital for planning, management, monitoring and evaluation of fisheries resources. There should be open access to all fisheries information to stake-holders on fisheries so that the general public is able to participate in fisheries discussions and make decisions based on accurate information

#### **Explanation**

As with any other natural resource, the availability of accurate and relevant information about fisheries resources is an essential pre-requisite for fisheries management. Without such information, 'management' decisions are little more than guesswork. Geographic Information Systems (GIS) is also an essential requirement for spatial fisheries planning. Other relevant information includes fisheries data and statistics relating, for example to catch and effort levels, social and economic parameters can be gathered with the active participation of communities. Such information will also be necessary for the introduction of new funding mechanisms such as fish levies.

Information systems must be based on clearly defined objectives that are relevant to specific management tasks. Information is equally important in terms of monitoring the performance of fisheries management institutions. Information systems must contain 'feedback loops' so that those who are affected can measure performance and promote accountability. In addition information must be available to all stakeholder particularly at community levels so that it can be used for planning.

#### **POLICY OBJECTIVES**

- 1. To ensure the availability of adequate and relevant information for planning and decision-making throughout the entire cycle of fisheries management and utilisation.
- 2. To guarantee the right of access to information and promote stakeholder participation in fisheries management.
- 3. To permit effective monitoring and evaluation and to promote transparency and accountability.

#### **POLICY STRATEGIES**

#### The central Government role would be to:

- Develop methodologies for the collection and analysis of fisheries information in response to national and local fishery data requirements;
- ii) Provide advice, training, technical assistance and support to local governments and communities concerning appropriate data collection, storage, analysis and interpretation;

- iii) Require local governments and communities on whom fisheries management tasks have been conferred to provide specified data to district, and national fisheries management institutions;
- iv) Collect, analyse, store and disseminate data of national importance to the fisheries and aquaculture sectors;
- Confer rights of access to information on stakeholders to enable them to meaningfully participate in planning and policy making processes and to ensure the transparent operation and proper functioning of fisheries management institutions;
- vi) Periodically review information requirements and collection processes to identify gaps; and
- vii) Devise reporting requirements and identify performance indicators to continually monitor the performance of fisheries management institutions at the community, district, inter-district and national level.

#### The Local Governments role at Provincial and District levels would be to:

- Collect, analyse, store and disseminate district data on fisheries and aquaculture sectors;
- ii) Train and guide the communities in data collection and processing

#### The communities' role would be to:

- Collect fisheries data on the number of fishing gears, boats/canoes and crew (fishing effort) etc.
- ii) Monitor fish catches in their areas

Local communities who are expected to possess extensive knowledge of local resources and constraints will share the information with government agencies and other stakeholders.

#### The NGOs and CBOs role would be to:

i) Support communities and districts collect, analyse and disseminate information on the social, economic, environment and cultural issues in the fisheries.

#### **6.2.8** The environment and fisheries

Minimised or avoid adverse environmental impacts on fisheries and take measures to ensure fishing operations on the environment are addressed and put in place mechanisms to ensure that fishing and aquaculture operations are compatible with the environment

#### **Explanation**

While the fisheries management process seeks to prevent the overexploitation of fisheries resources it must be recognised that many of adverse impacts on fisheries, and the aquatic ecosystems in which they are situated, are environmental in nature and result from activities that are outside the fishery itself. These include large-scale development projects on water-bodies such as the construction of dams as well as the construction and operation of factories or mines that cause pollution. In addition the cumulative impacts of numerous smaller scale activities such as farming and the spread of human settlements can have significant adverse impacts on inland fisheries. These include sedimentation caused by erosion run-off caused by poor farming practices and de-forestation, pollution from human and animal wastes, the destruction of wetlands and near shore areas that are valuable fish breeding grounds.

The responsibility for controlling and preventing environmental degradation of aquatic ecosystems in which fish stocks are found, lies with a variety of different government agencies and bodies. Impacts on fisheries can be enormous and are often over looked. Formal mechanisms are needed to promote a holistic approach to ecosystems management and development that contain fisheries and to ensure that concerns of the fisheries sector are fully taken into account.

#### **POLICY OBJECTIVES**

- 1. To protect fisheries and aquatic ecosystems from adverse environmental impacts.
- 2. To put in place fishery management plans, practices and programmes that do not cause adverse impacts to fisheries and aquatic ecosystems and where such impacts cannot be avoided, measures are taken to minimise effects on fisheries.
- 3. To establish mechanisms at the national, regional and community levels to promote vertical and horizontal co-ordination of policies, plans and programmes so as to protect fisheries and aquatic ecosystems from adverse impacts.

#### **POLICY STRATEGIES**

#### Government role is to:

- i) Ensure that national agencies to consult with national, district, sub-county and community fisheries management institutions in respect of activities that may affect fisheries;
- ii) subject sector plans and programmes, as well as proposals for developments, that may have significant impacts on fisheries to environmental impact assessment (EIA), and ensure that potential adverse impacts on fisheries and aquatic ecosystems are specifically addressed;
- iii) Establish binding minimum standards for the protection of the environment from fisheries and aquaculture activities;
- iv) Establish and/or maintain systems to monitor the quality of aquatic environments that support active fisheries;
- v) Promote public awareness of the need to protect aquatic ecosystems that support fisheries;
- vi) Promote multi-disciplinary research into adverse environmental impacts on aquatic ecosystems that support fisheries;
- vii) Issue guidelines, from time to time, for the integration into policies, plans and programmes of best measures and practices to protect fisheries and aquatic ecosystems;
- viii) provide in legislation for the establishment of inter-sectoral management institutions, involving all relevant stakeholders, that are able to take an integrated approach to the management and protection of ecosystems that may impact on fisheries; and
- (ix) Ensure increased and effective participation of non-state actors in environment protection and conservation of fisheries resources.

#### 6.2.9 Aquaculture

Aquaculture production will be increased so as to reduce the gap between fish supply and demand for food fish but in a manner environment protection is observed and biological diversity conserved.

#### **Explanation**

The farming of fish and crustaceans has potential to contribute to food security, household poverty eradication, exports, employment and wealth creation. Aquaculture is easily compatible with agriculture than traditional capture fisheries and is easily integrated into household farming systems with potentially real impact on the protein intake of the rural poor. Fish can also be reared for commercial purposes especially in areas without major artisanal fisheries.

To be sustainable, aquaculture systems must fit within the social and economic context of the agricultural production systems in which they are found or introduced. In Zambia, there has not been a deliberate policy initiative to encourage large-scale intensive or semi-intensive commercial fish farming. Consequently the Zambian aquaculture sector is dominated by small scale operators keeping fish in ponds dug in gardens. This policy aims at transforming aquaculture into a vibrant industry particularly in peri-urban areas.

#### **POLICY OBJECTIVES:**

- To increase the quality and quantity of aquaculture production at both small-scale and industrial levels.
- 2 To ensure and increase the production of a diversified range of fish products including finfish and crustaceans from aquaculture.
- To identify fishery areas with potential for live ornamental fish production and encourage development of aquarium fisheries;
- 4 To increase fish production in small water bodies.

#### **POLICY STRATEGIES**

The Central Government role would be to:

- i) Involving all stake-holders particularly local institutions in the implementation of research relevant to the needs of the sub-sector.;
- (ii) Expand and diversify production of farmed fish species;
- (iii) Encourage production of high value local species such as (African catfish and Crayfish);

- (iv) Encourage, guide and promote small scale semi-intensive poly culture for rural farmers; large scale semi intensive mono sex for progressive farmers or middle class;
- V) Encourage diversification and the development of new technologies to reduce production costs and exploit new areas or opportunities for aquaculture production;
- (vi) Set standards and guidelines for fisheries management and development at districts;
- (viii) Encourage involvement of communities in restocking and management of stocks water reservoirs and minor lakes; and
- (ix) Ensure effective participation of NGOs and CBOs in the promotion of rural based aquaculture development programmes
- (x) Encourage out-grower schemes for fish culture development and expansion

#### The Local Governments role at Provincial and District levels would be to:

- i) Be responsible for local level planning for aquaculture development;
- ii) Support development of private seed production with emphasis to supplement Government fish farms
- iii) Ensure that farmers receive the right and appropriate technical guidance and advisory services on aquaculture practices;
- iv) Encourage and empower farmers through formation of fish farming groups cooperatives and associations;
- v) Formulate good aquaculture practices by setting up technology dissemination centres for aquaculture;

### The Civil Society role would be to:

- i) Support training of farmers in aquaculture practices
- ii) Promote aquaculture among the rural poor by provision of advise, basic inputs and financial support for aquaculture operations.
- iii) Support on-farm trials and demonstration centres for aquaculture development;

- iv) Organise farmers into fish farmers associations and groups;
- v) Support and promote exposure of farmers to new technologies and practices in aquaculture
- vi) Assist poor farmers in establishing appropriate aquaculture production systems, through provision of inputs and credit.

#### 6.2.10 Post-harvest fish quality and value addition

Measures will be promoted to ensure that the quality, wholesomeness, safety for human consumption and value of harvested fish and fishery products is maintained and / or enhanced.

#### **Explanation**

Fish harvested from both the wild and from aquaculture is a highly perishable. If not properly handled, it rapidly loses quality and economic value, putting human health at risk. As with other aspects of fisheries management, appropriate information is necessary to assess the extent of the problem and the effectiveness of any measures taken to address it, which can include the setting and implementation of rules and standards to preserve and promote fish quality. Furthermore through improved practices and investment, value can be added through processing and packaging.

#### **POLICY OBJECTIVES**

- 1. To improve the utilisation of fish catches and reduce waste and/or post harvest losses.
- 2. To ensure that the commercial value of harvested fish is preserved and/or enhanced.
- 3. To safeguard the quality and safety of fish sold to domestic and foreign consumers and to meet their growing expectations regarding the quality of fish and fish products.

#### **POLICY STRATEGIES**

#### The Central Government role would be to:

- i) ensure that proportionate standards are set for different market requirements;
- ii) Streamline and strengthen existing institutional systems for the inspection and quality control of food, fish and fisheries products;

- iii) Establish and maintain effective information systems to monitor post harvest losses taking account relevant social and economic aspects;
- iv) Take measures to ensure that the contamination of fish and fishery products is avoided both before and after harvest;
- v) Improve and maintain plant quality control and hygienic conditions in fish processing establishments by enforcing the Code for Good Manufacturing Practices;
- vi) Adopt quality and safety assurance systems based on Hazard Analysis of Critical Control Points (HACCP) and Total Quality Management (TQM);
- vii) Encourage the development of appropriate fish handling, transportation, distribution and marketing systems in Zambia; and
- viii) Promote the development of improved fisheries sector infrastructure and equipment, including fishing boats, fish landing sites, fish stores, fish markets, and systems for the transport of fish that contribute to maintaining the quality of harvested fish.

#### The Local Governments role at Provincial and District levels would be to:

- i) Carry out planning and development of infrastructure facilities for landings, distribution and marketing of fish
- ii) Ensure that hygienic conditions and sanitary facilities are maintained at all fish landings
- iii) Facilitate the inspection of fish at markets and landing places
- iv) Develop bye-laws which promote and ensure that the quality, wholesomeness and safety of fish and fishery products is secured

#### The Communities role would be to:

- i) make sure they keep their landings clean and safe for human consumption
- ii) Make sure all persons involved in the fishery are clean and all the equipment used in the industry is kept clean

#### The Civil Society role would be to:

a) Mobilise and sensitise fishing communities on fish quality assurance and handling practices.

### **6.2.11** Fish marketing and trade

Measures will be taken to achieve sustainable increases in the value and volume of fish marketed for national consumption and export.

#### **Explanation**

Increases in the value and volume of fish traded will generate economic benefits for the fisheries sector. It will also improve consumer choice and increase the availability of a valuable source of protein. Government policies in the agricultural and natural resource sectors seek to orient producers towards commercialisation rather than subsistence thus improving rural living standards. At the other end of the, increased exports based on exploitation of natural resources will generate valuable foreign exchange. Nevertheless increased trade must be sustainable so as to avoid excess exploitation.

#### **POLICY OBJECTIVES**

- 1. To increase the value and volume of fish traded internally within Zambia.
- 2. To orient fisheries activity towards commercial rather than subsistence production so as to increase rural incomes.
- 3. To increase the market share/value of a variety of fish species for exports without compromising domestic food security.
- 4. To reduce the quantity of fish imports by offering a range of competitive value added products particularly to urban consumers.
- 5. To achieve sustainable increases in foreign exchange earnings from the export of fish and fish products.

#### **POLICY STRATEGIES**

#### Central Government role would be to:

i) Ensure the provision of advice on fish marketing and exports to operators;

- ii) Remove domestic price distortions by allowing free trade in fish and fish products in whatever form and in conformity with other government policies;
- iii) Encourage diversity in fish products for domestic and international markets;
- iv) Encourage the development and use of pre-packed fish products other products that add value to harvested fish;
- create mechanisms for the provision of access to timely and reliable information to private sector and community-based fishing enterprises and institutions on national and international fisheries markets and the prices of fish and fish products, making use of the internet and other electronic information systems;
- vi) Encourage the development of marketing organisations at the regional and national level; and
- vii) Promote training in business and marketing skills within the fisheries sector, at the national, regional and community level.

#### The Civil society role would be to:

- i) Identify suitable and reliable markets for artisanally processed fish and fish products locally, regionally and internationally;
- ii) Collect, analyse and provide up to date market information on artisanally processed fish and fishery products to operators.

### 6.2.12 Human resource development

The Government will promote comprehensive training and advisory programmes so as to build human resource capacity to increase levels of knowledge, skill and expertise in the public and private fisheries sub-sectors.

#### **Explanation**

Continuous human resource development is necessary for the sustainable development of any natural resource sector. Regarding fisheries management and development, new institutional arrangements will require the development of new skills and expertise at all levels, including communities and the less advantaged. At the same time the development and introduction of sustainable new fishery and aquaculture practices as well as new skills and expertise regarding

post harvest activities concerning fish quality and trading, will contribute to the growth of the sector.

Government will put in place measures to retain experts specialised in the management of the fisheries in the public service and engage as many local experts as possible in programmes that benefit fishing communities

#### **POLICY OBJECTIVES**

- 1. To sustainably increase levels of knowledge, skill and expertise throughout the entire fisheries sector so as to lead to better decision making regarding management and development issues.
- 2. To improve the delivery of human resource development programmes to the poorer sections of the fisheries communities.
- 3. To ensure that the provision of human resource development programmes is demand driven and that it responds to actual needs.
- 4. To support new institutional arrangements in the fisheries sector taking into account the changing roles and functions of fisheries management institutions.
- To develop competence in different area of fisheries management and aquaculture both in public and private sectors.

#### **POLICY STRATEGIES**

Central Government role would be to:

- i) provide appropriate training, advice, technical and other support to fisheries management institutions at all levels to enable them to effectively discharge their management functions;
- ii) ensure that national agricultural advisory and extension programmes and policies enable individuals, groups of individuals and communities within the fisheries and aquaculture sector to identify areas in which they require advice and technical support and to obtain reliable and affordable advice and support in such areas;
- iii) Co-ordinate the provision of training, advice and technical support programmes to the fisheries sector to prevent duplication and improve service delivery;

- iv) strengthen institutions offering fisheries management training through certificate, diploma, undergraduate to postgraduate programmes so as to ensure an adequate body of trained expertise capable of provide training and advice to the fisheries sector;
- v) Include fisheries management issues in the curricula or syllabuses of primary, secondary and tertiary schools and colleges; and
- vi) Support and facilitate non-state actors in the provision of human resource development services to the local communities and their organisations.

#### The Civil Society role would be to:

- i) Conduct community training needs assessments;
- ii) Complement the efforts of Government institutions in offering both fisheries management and other skills training to the grassroots fisher communities.
- iii) Provide forums for public discussions on issues relating to fisheries management and development

## 6.2.13 Research

Social, economic, environmental and technical investigation of issues pertinent to fisheries, including the development of appropriate technologies, will be promoted in response to fisheries development and management needs.

#### **Explanation**

The main research benefits to the fisheries and aquaculture will be derived from practical or applied research that is demand driven. The concerns by the private sector, investors, communities and fisheries management institutions must be addressed through research. Such research will include scientific, biological, social and economic investigations to improve decision-making at all levels for effective fisheries management, development and utilisation. In addition it will be necessary to promote research that is appropriate for the different types of fisheries and aquaculture systems found in Zambia's varied water bodies.

#### **POLICY OBJECTIVES**

- To commission effective and efficient fisheries research that is oriented towards and driven by the needs of the private sector, public sector and fisheries communities.
- 2. To encourage increased fisheries research by public and private bodies including Universities.
- 3. To ensure the generation and provision of sufficient information to allow effective decision and policy making regarding fisheries management.
- 4 Ensure new technologies for fishing post harvest and aquaculture are developed and periodically refined to answer new challenges.

#### **POLICY STRATEGIES**

#### Government role would be to:

- Fund relevant biological, social, economic, environmental and technical research into fisheries and aquaculture management and development issues of national and fishery importance;
- ii) provide guidelines for the commissioning of research by fisheries management institutions at the inter-district, district, sub-county and community level to enable them to better discharge their fisheries management functions;
- iii) Ensure that sufficient resources are made available for analysis of research data provided to the national level fisheries management institutions;
- iv) Ensure that all raw data from nationally and internationally commissioned research into Zambian fisheries is made available to the stakeholders;
- v) Require all internationally funded research to be in accordance with, and contributes to, the objectives of this policy;
- vi) Set up funding mechanisms and make adequate funds available to promote research into fisheries and aquaculture by public and private sector institutions;
- vii) Ensure the involvement of the communities and civil society in the collection of research data; and

viii) Establish systems to monitor the relevance and effectiveness of all research into fisheries and aquaculture.

#### The Civil society role would be to:

- i) Carry out both independent and joint research with government research institutions;
- ii) Disseminate generate technologies from government research institutions to the end users.

### 7.0 Measures

# 8.0 Implementation Framework

# 8.1 Institutional Arrangements

# 8.1.1 Current Fisheries Roles and Mandates in Zambia

The Department of Fisheries (DoF) under the Ministry of Agriculture and Co-operatives is mandated to promote, guide and support the sector, but it also retains responsibility for setting and enforcing the standards and regulations for practices pertaining to fisheries. The Centre is primarily mandated to promote, support and guide (and regulate either by devolution or by direct action according to circumstances). The hands-on work of ensuring controlled access to a sustainable resource base, and for developing the socio-economic potential of the sector lies mainly with the District and Provincial administrations, the communities (Local Government Act, number - of 199) and the private sector. However, there will be circumstances where local capacity alone will not be sufficient to safeguard the livelihoods of people depending on fisheries resources and the centre must have the capacity and mandate to intervene directly. This situation will be common on large, international water bodies where control of piracy and handling of multinational issues will be beyond the competence of the local Units.

Some key roles of the Centre, the Ministry and the Department of Fisheries under decentralisation include:

#### (a) **Promotion**

- i) Create awareness of sector value and potential of the fisheries sector in the country
- ii) Create awareness of sector needs and vulnerability
- iii) Encourage investment by private sector & local governments
- iv) Promote product development and export with private sector

- v) Promote best practice (CCRF) and a precautionary approach
- vi) Encourage the private sector to undertake research in fisheries and
- vii) Encourage the private sector to contribute to community welfare

#### (b) Support

- i) Provide technical back-up to Provincial and District fisheries units
- ii) Provide information to all stakeholder groups
- iii) Build capacity at Provincial and District fisheries Units
- iv) Monitor the Provincial, District fisheries and community fisheries units
- v) Create funding strategies for sector development
- vi) Ensure sustainable resource use through good policy and good law
- vii) New options for production and livelihood improvement

#### (c) Guide

- i) Advise on implementation of policy and law
- ii) Advise on adaptation of law and policy at local level
- iii) Advise on development needs and options
- iv) Advise on private sector investment
- v) Advise on mechanisms for co-management
- vi) Advice on management and policing of shared resources

#### (d) Regulation

- i) establish an appropriate and equitable legal framework for sustainable management;
- ii) Monitor, control and surveillance of fisheries oversight as part of recurrent operational support to enforce fisheries laws/regulations;
- iii) Ensure implementation of national law and international agreements on shared large water bodies, using direct action when required
- iv) Support and monitor evolution of appropriate and compliant laws at District and community levels
- v) Enforce and monitor national standards of post-harvest quality and practice

### 8.2 The Roles of Communities

Communities, under decentralisation policy, are expected to take a leading role in husbanding their resources especially in near shore waters. It is recognised that, with reduced central

Government involvement in the routine management of the fisheries Provincial and District administrations own their own will not be able to ensure sustainable use of resources and the improvement of fisheries livelihoods.

Central Government can however be expected to take direct responsibility for dealing with major issues (e.g. encroachment by foreign nationals) and disasters (e.g. fish poisoning, outbreaks or disease epidemics in aquaculture). However, communities are expected to support Provincial and District Administrations in day to day safeguarding of their natural assets and livelihood strategies.

#### The roles of communities include:

- (a) Support Provincial and District Administrations in the implementation of national laws and policies;
- (b) Support and collaborate with Provincial and District Administrations in the adaptation of laws and policies to meet local needs;
- (c) Ensure compliance with local and national regulations;
- (d) Contribute to the husbandry of the resource;
- (e) Support Provincial and District Administrations in establishing mechanisms for the management of shared resources;
- (f) Contribute to the revenue required by Provincial and District Administrations to fuel the development and administration processes;
- (g) Identify community priorities and plan for improvement.
- (h) Articulate issues and priorities and advocate for the needs of the sector
- (i) Collect fisheries data on fishing effort and catches
- (j) Formulate and enforce community byelaws at the local level;
- (k) Monitor fishing activities within their localities.

#### Communities obviously face major constraints in fulfilling these roles. These include:

(a) Divergence between the views and needs of the poorest in communities and those people best placed to interface with Provincial and District Administrations;

- (b) Ensuring equitable representation on Community Based Organisations;
- (c) Avoiding undue political influence in achieving a voice;
- (d) Conflict of interest between long term sustainable resource use and the immediate needs of the poor and the ambitious;
- (e) Limited literacy and numeracy skills amongst the poorest;
- (f) Limited capacity to plan and limited weight for advocacy;
- (g) A migratory lifestyle often far from core services, and militating against community planning and community empowerment.

Under these circumstances, the role of local communities is of major significance in the management and development of fisheries.

# 8.3 The Role of NGOs and Community Based Organisations (CBOs)

A range of CBOs may exist within a given community, but there are relatively few that target collaboration in pursuit of community poverty reduction. However, some claim to address the wise use of natural resources and fisheries. The poorest groups or labourers, who actually go out and fish on water bodies are still very few and small. Workers associations, fisher groups or cooperatives tend to be based on opportunities for accessing Government and donor assistance. These CBOs do not appear to be geared for advocacy or empowerment of the poorest elements of fisheries communities, but they draw together people who actually fish the lakes and to an extent determine the practices employed. This is obviously a target group for empowerment, community planning and poverty reduction strategies under this policy.

#### The roles of the NGOs/CBOs include:

- a) Mobilising and sensitising local people for active participation in managing fisheries activities;
- b) Supplement the efforts of the public sector in advisory services or extension;
- c) Training and skills development among the fishing communities and their organisations;
- d) Act as intermediaries and. or conduit for financial support e.g. micro credit, loans to the fishing communities.

- e) Collect and analyse independent data on fisheries particularly socio-economic data for advising government; and,
- f) Advocacy to ensure that the concerns of the underprivileged are incorporated in the national development processes.

NGO strength lies in their long-term commitment, their perceived transparency, their access to communities and their independence. Although they often lack capacity and specific skills relating to fisheries as well as financial resources, they are likely to be relevant to fisheries management and development in the implementation of the fisheries sector policy.

### 8.4 The Roles of the Private Sector

The private sector is the engine for growth even in rural areas of the country. Government failed or withdrew from doing business in the fishery industry by divesting government owned fishing and fish processing enterprises. The government sees a major role for the private sector in fisheries especially in industrial fishing processing and export of fish; management of fish landing sites; procurement and sale of fish raw material to industry; and, commercial intensive fish farming.

# 8.5 Education, Training and Research Institutions

Fisheries research is undertaken by the Department of Fisheries. Other institutions in the country have the capacity to undertake fisheries research and research that is related to fisheries management. To avoid duplication of efforts and to improve upon efficiency, institutional co-ordination will be essential through information exchange, symposia, seminars and joint development of research priorities between users and researchers.

# 8.6 SUPPORT FOR POLICY IMPLEMENTATION

Whatever institutional structure is ultimately agreed upon, it will need to accommodate a range of key functions and issues. The Centre is primarily mandated to regulate, promote, support and guide the sector. The hands-on work of developing the socio-economic potential of the sector lies mainly with the Local Governments, the communities and the private sector. The core requirements are:

### 8.6.1 At the Centre

- (a) Understanding of, and "buy-in" to, the national policy environment in which all sectoral development must take place and the capacity to influence at that level through effective advocacy;
- (b) Routine and productive linkages (and influence) with all macro-level institutions relevant to the management and development of the sector and to the socio-economic development of the people who depend on the sector;
- (c) The capacity to develop policies and to plan for sectoral development and sustainability;
- (d) The information on which to base policies and plans, and the capacity to deliver information to stakeholders at all levels;
- (e) The capacity to develop and review the regulatory framework necessary to ensure equitable and sustainable development;
- (f) The capacity to monitor the implementation of policy, plans and regulations across ecosystems and across administrative and international boundaries;
- (g) The capacity to co-ordinate sectoral development activities, particularly across administrative or international boundaries;
- (h) The capacity, and mechanisms to support and work with Local Governments and communities in their efforts towards sustainable livelihood improvement and poverty reduction;
- (i) The capacity to intervene where local efforts to implement plans, policies and regulations have failed, or where local resources are insufficient to meet the demands of the situation (e.g. policing a large international water body);
- (j) The capacity to identify, develop and promote opportunities and innovations to increase the value of the sector in poverty reduction and national economic growth;
- (k) The capacity to promote the importance of the sector at all levels, to lobby and to secure adequate funding for development and for maintenance of institutional arrangements and processes.

# 8.6.2 At the Local Government Level

- (a) The capacity (and the mandate) to implement national policy and to ensure application of national regulations governing sectoral development;
- (b) The capacity to make and pass fisheries ordinances and by-laws based on national law, but tailored to the specific needs of the local situation;
- (c) The capacity to administer local fisheries policies and mechanisms for interaction between Local Government bodies and community stakeholders to enable effective and sustainable use of shared common resources;
- (d) Mechanisms to ensure integrated and effective use of all key players at the LG level (e.g. fisheries, forestry agriculture and environment staff);
- (e) The mechanisms and capacity to facilitate routine interaction with the Centre, and to derive from the Centre all available benefits in terms of support, advice, information and co-ordination;
- (f) The capacity to advise and guide communities on opportunities arising locally or from the Centre;
- (g) The capacity and mechanisms to mobilise communities in support of national policy, regulatory implementation and development opportunities;
- (h) Understanding of, and commitment to, the opportunities offered by the fisheries sector in pursuit of poverty reduction and improved livelihoods;
- (i) Understanding of the constraints and vulnerabilities applying to the fisheries and to the people depending on the common resources;
- (j) Understanding of the wider national development arena and of the funding and other support opportunities that may be available to support improved fisheries benefits;
- (k) Efficient collection of all appropriate revenues from the sector, and reinvestment in development opportunities on demand from communities, and with guidance as required, from the Centre.

# 8.6.3 At the Community Level:

(a) Understanding of the constraints and opportunities inherent independence on fisheries resources as a core livelihood asset;

- (b) Commitment to a sustainable and equitable approach to use of resource, and to collaboration across village or neighbourhood and administrative boundaries where needed;
- (c) The capacity, (the mandate) and the will to support Local Government in application of national policies and regulations, and in the tailoring of these national givens to the needs of the local situation;
- (d) The capacity (and the mandate) to participate directly in the regulation of the fishery related to local enforcement of bye laws; and, to contribute to the planning and policy making process at local and national level;
- (e) The capacity to generate development plans and to lobby for the necessary resources to implement plans;
- (f) The mechanisms to interact with, and to influence, Government at all levels.

# 8.7 Institutional Requirement

The core elements outlined are far reaching, and must determine certain core elements of any new fisheries institutional framework. At the centre, the institutional basis would ideally incorporate:

# 8.7.1 External environment

- (a) A strong forum for interaction with the other natural resources agencies with clear mandate, targets and integrated aquatic resources policies and action plan;
- (b) A forum for regular interaction with key strategic institutions (outside the MACO umbrella) notably MoFNP, MoLG, and MTENR etc;
- (c) Strong and clearly defined linkages to districts at strategic and technical levels planning and finance as well as fisheries, aquaculture, agriculture, forestry and environment;
- (d) A strong and sustainable financing basis clearly ring fenced from the general MACO allocation to permit realistic mid-term planning and decreasing reliance on government subvention;

- (e) A strong and clearly mandated research service provider providing information in line with client demand;
- (f) A strong and integrated extension service provider providing broad skills and options for fisheries livelihoods enhancement;
- (g) Strong customer/client links with (commercial) private sector service provision and advice on a cost recovery basis;
- (h) **Strong links with national security and law enforcement agencies** to safeguard the interests of national stakeholders in the context of large international waters where comanagement alone may be inadequate.

### 8.7.2 Internal environment

- (a) A strong core management team with skills in advocacy, policy, economics, business management, strategic planning and institutional development;
- (b) A strong technical team with skills in fisheries management, aquaculture development, aquatic environment, and community development and strong links to extension service providers;
- (c) a strong monitoring, surveillance and control team with broad technical skills, and deep understanding of the regulations and oversight roles with regard to fisheries management and quality control – with strong links to LG technical and administrative staff;

# 8.8 Proposed Central Lead Agency

A Central Fisheries Agency (CEFA) is proposed to address the concerns and will offer broad capacities and responsibilities required of a fisheries management institution outlined above. The proposed CEFA is to be an autonomous institution under its parent Ministry and has a competitively appointed Chief Executive, with a governing board appointed by the Minister.

The Current Department of Fisheries is to be transformed into a Fisheries Service (Ministry of Fisheries and Aquaculture?) to offer secretarial and advisory services to the Minister, National Fisheries Management Board, Fishery and District Fisheries Management Committees. Ultimately District committee will need to hire staff to enforce fisheries management regulations.

A Central Fisheries Research Institute (CFRI) will be established as an autonomous institute to provide specialised research serviced to fisheries management and aquaculture development.

# **Key benefits of Authority status** (as a opposed to government departments) **are**:

- (a) Delivery of a better service for the same or less cost;
- (b) Reduction of cost to Treasury by increased revenue generation and/or reduced costs;
- (c) Greater freedom to manage and clear accountability;
- (d) A results (client) oriented focus;
- (e) Opportunity to commercialise operations where services are demanded;
- (f) Release from some Civil Service rules and regulations regarding operational flexibility;
- (g) Freedom over staffing levels and structures;
- (h) Flexibility over salaries and conditions;
- (i) Powers to recruit and promote; and to discipline;
- (j) Self accounting status with separate budget heading in parent Ministry;
- (k) The right to accumulate reserves and to retain earned income;
- (I) A legal entity that can sue and be sued and can acquire and dispose of property.

In principle an Authority benefits from the freedom offered by an autonomous institution. It could address many of the requirements and roles identified for the fisheries sector. A Fisheries Authority could raise and retain revenue in addition to receiving core funding from Government. The funds received from Government would be ring fenced for the Authority and could not be diverted. The direct control over budgets should permit rapid decision making and accurate business management. A close and consistent relationship with Local Government is afforded. In addition, the Authority would develop a new and clearly defined partnership with other renewable natural resources institutions. The Authority would operate on the basis of a Business Plan and the integration of the plan with a National Fishery Strategic Framework derived from this Fisheries Policy.

# 8.9 Gender and Equity Issues in Fisheries

The government will ensure that women, the youth and poor people in particular are beneficiaries of the development of the fisheries sector. The policy recognises that there are other sections of society that are often marginalized in development processes, and that these groups are frequently the most dependent on fisheries resources for their livelihoods. The government will address this through its policy and equity and in employment and business opportunities, and by ensuring equity in the access, tenure, participation and sharing of benefits that accrue in fisheries. The government shall ensure that reformed institutional structures promote the active participation of women, men and vulnerable groups.

In 2002, the Ministry of Agriculture, and Cooperatives (MACO) formulated gender-oriented policies aimed at addressing gender issues in the sector. Part of the objectives of these policies is to integrate gender concerns in fisheries policy planning, decision making and implementation at all levels to ensure sustainable social and economic development.

# 8.10 Legal Framework

### 8.10.1 The Fisheries Act (1974)

The substantive law that provides for the regulation of the Zambia Fisheries is the Fisheries Act of 1974 (Cap 200). The Act must have been advanced at the time that it came into force. It is now considered to be inadequate to cope with the domestic and international changes in fisheries administration and the latest policy thinking. The Act by current standards is neither comprehensive enough nor flexible enough to provide for the proper management and conservation of fisheries. A new national fisheries bill is proposed for implementation of this policy.

# 8.11 Advisory and Support Services

Government shall adopt extension service delivery system as defined in the recommendation of the Plan for the Modernisation of Agriculture in general and National Agricultural Advisory Service(NAADS) in particular. Currently, Community Based Organisations (CBOs) and some NGOs are carrying out some information dissemination and providing a back-up support for the existing district-based extension systems.

The fisheries extension service shall operate under the proposed National Agricultural Advisory Service (NAADS). This will be a well-defined functional extension support service body, which will provide information and advice, and will also facilitate extension service for all the fisher communities or fish farmers.

### 8.12 RESEARCH AND TECHNOLOGY SERVICES

The government will support the research—based and technology based fisheries through effective and demand led research. Government recognised the fact that fisheries in Zambia was founded through sound scientific research, and that this is fundamental to good practice in the sector. It will promote cost-effective research that responds to the needs of the fishers, fish farmers, private investors, and communities, extension agents and central and local government agencies that are in front line of fisheries management.

The Central Fisheries Research Institute (CFRI) and National Aquaculture Research and Development Centre are currently undertaking fisheries research. However, all have inadequate resources and capacity and have suffered from poor investment. The government shall strengthen and promote fisheries research as the basis for sustainable development and management of the sector. Traditional research areas will be expanded to include research that supports private sector development in both artisanal fisheries and aquaculture.

### 8.13 CAPACITY BUILDING INCLUDING TRAINING SERVICES

Government shall develop capacity at national, district and private sector levels to improve skills in the fisheries sector. Appropriate training shall increase the knowledge of all the people involved in the fisheries sector. There is need for a Bachelor of Science in Fisheries degree and postgraduate diploma in fisheries to be initiated or floated at our Universities and at the Fisheries Training Institute respectively. Currently the Fisheries Training Institute runs 2 year certificate courses. The institute lacks trained fisheries scientists and it is still in the process of updating its curriculum to cover all aspects of fisheries management including aquaculture. There has been lack of properly organised fishers and fish husbandry leadership to implement fishers based programs. Some of the fishermen organisations and Fisheries Conservation Associations and a few co-operatives are beginning to be active in mobilisation of communities in the management of fisheries and to promote fish farming. There is need to strengthen these associations by involving their managers and the fishers and fish farmers in dedicated training programs.

# (C) Resource Mobilisation

The government shall create an investment climate in support of the existing one and provide adequate incentives and a long term investment program for the sustainable development of the fisheries sector in Zambia. The implementation of the fisheries sector policy will require

significant financial resources. The areas of specific interventions and proper investment programs will be stipulated in the Zambian Fisheries Master Plan. The Fisheries Master Plan will identify fisheries development potentials, the development constraints, development strategies, programs and projects for investment. The fisheries sector to-date has benefited from a number of support programs provided by several development partners over the medium-term and long term and this donor support will still be needed.

# (d) Monitoring and Evaluation

The government will ensure that performance in implementing the Fisheries Policy will be monitored and regularly assessed. This will include an audit of investments, and evaluation of the impacts of the new institutions. Impacts will be measured in terms of sustainable use of the resources base, the growth of the economy through increased fisher participation and the alleviation of poverty amongst the fishers. This will require a well-defined information system with reliable data of defined objectives, verifiable indicators and the means of verifying indicators plus critically agree assumptions. It will require that all fisheries investment programs and activities set out plans for monitoring and select minimum indicators to show progress and impacts. The use of the outputs of the functional analysis in MACO will help in defining all the monitoring indicators for the fisheries sector

# 9.1 Public Education

Government recognises the importance of having a well-informed public as part of the fisheries sector development. Government will emphasise public education programs to the fisher so as to increase awareness and understanding of fisheries concerns.