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CATFISH AQUACULTURE INDUSTRY ASSESSMENT IN NIGERIA



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LIST OF ACRONYMS

FDF	Federal Department of Fisheries
UNDP	United Nations Development Program
FAO	Food and Agricultural Organization
NGO	Non-Governmental Organization
ARAC	African Regional Aquaculture Centre
RBDA	River Basin Development Authorities
NIOMR	Nigerian Institute for Oceanography and marine Research
NFDC	National Fisheries Development Committee
NCA	National Council on Agriculture
FISON	Fisheries Society of Nigeria
CAFAN	Catfish Farmers Association of Nigeria
AFIN	Association of Catfish Importers of Nigeria
FEDA	Catfish Export Development Association
AAFAN	Association of Aquaculture Farms and Agro-processors of Nigeria
NIFFR	National Freshwater Fisheries Research Institute
GES	Growth Enhancement Support
NIRSLA	Nigeria Incentive Risk-Sharing Agricultural Lending
WTO	World Trade Organization
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EIA	Environmental Impact Assessment
EU	European Union
FGN	Federal Government of Nigeria

EXECUTIVE SUMMARY

This study was commissioned by the African Union-InterAfrican Union Bureau for Animal resources (AU-IBAR). This research covered randomly selected catfish farms, catfish hatcheries, processing plants, feed importers, local feed makers, catfish marketers and markets in Nigeria. A review of existing literature was carried out, structured questionnaires covering hatchery operators, catfish farms, marketers and processors were designed and administered to some farms using field assistants. Meetings were held with the Catfish Farmers associations, feed importers and sellers. Oral interviews were conducted with the staff of Fisheries Department in some States and the Federal Ministry of Agriculture and cooperative. Production and sale data were analysed to determine cost of production and profitability of catfish farming business.

The Federal Government of Nigeria through the Department of Fisheries (the competent authority) actively promoted Catfish Farming as one of the profitable means of Fish Production that is environmentally friendly and sustainable through infrastructure development, awareness creation, training, policy formulation and implementation, signatories to relevant international conventions. These efforts are complimented by State and Local Government, NGOs, private sector and other stake holders through homestead catfish farming, cage culture, recirculatory systems and establishment of fish farm estate, input supply and subsidy and, Enlightenment programmes, training, encouragement of catfish farmers to organize themselves into co-operatives and establishment of centralized fish market etc.

Catfish is the major fish cultured in Nigeria because it is found all over the Country, eaten by most tribes, resistant to harsh environmental conditions, commands good price, tasty and can be kept alive for days during marketing. Estimates put the current production output of Clarias gariepinus in the Country at over 253,898 metric tonnes per year. With these rates of production new market and value addition to catfish will have to be exploited in order to absorb total production in the future. Apart from smoking and drying, there are no systematic scientific processing and value addition industries that have been developed from the Catfish to meet International market requirements. It is recommended that research efforts be directed to possible small scale industries (Catfish cooking oil, Catfish soap, Catfish body cream, Catfish fillets) that can be developed from Catfish. For production to meet the local and international standards at reasonable price, farms have to be certificated. This requires the establishment of standards and offering them for adoption, educating the farmers, feed makers, fingerling producers and marketers on the best practices.

One of the major constraints that are responsible for high cost of production is the Catfish feed. It is suggested that local producers be encouraged and empowered to produce feed through import duty removal which could be extended to the importers too since feed production locally is not enough to satisfy the farmers. The possibility of diversification to other fish with less protein requirement in their diet and ornamental fisheries exist and this can actively be promoted. It is envisaged that there will be huge increase in production in no distant future. Market for catfish farm product exists in USA, EU, and China to mention but a few. Collection points were identified all over the Country for dried products and these points can form the transit storage centres when developed. Exportation requires value addition (smoking, filleting etc.) and production in line with the standards of the importing Country where the product is exported. Regular training on export requirements, packaging etc. may be carried out for the exporters.

Harmonization of programmes and policies aimed at promoting exportation and the transformation agenda at National and State levels to achieve effective synergy in areas such as the import substitution policy, Staple food processing zone and export free trade zone must be carried out while cluster farming is critical and effective in reducing cost of production. The genetic strength of parent stock in the country is becoming

weak as evidenced in very large mortality of fingerlings/juveniles. Virile, meaty and fast growing parent stocks that can produce good quality juveniles must be developed, maintained and offered to hatcheries and this should be one of the areas of intervention by the public sector and NGOs.

1. GENERAL OVERVIEW AND METHODOLOGY

An assessment of catfish aquaculture industry in Nigeria was carried out between December 1 and 31, 2013. During the assessment visits were made to randomly selected catfish farms, hatcheries, feed mills, processing plants, research institutes, tertiary institutions, state and Federal Departments of Fisheries across the six geographical regions of the country. In addition, extensive literature review, consultations, telephone calls and meeting with broad base stakeholders were carried out. Results obtained were analysed and presented drawing from personal industry experience along with field work. Nigeria has full potential for marine, brackish and fresh water aquaculture due to the existence of extensive coastline (853km), perennial swamp (1,010,000ha), freshwater (12,500,000ha), land mass (79,100,000ha), brackish water (741,509ha) and marine water (48,695ha)(,Anetekhai,2004). In addition, over one hundred fish species with high demand, high market value, and good taste, hardy, high growth rate, capable of withstanding high stocking densities and thus form good candidates for aquaculture are indigenous to and widely distributed in Nigeria. Despite the huge number of fishes with culturable potential, only a few species: - Clariid (Clarias and Heterobranchus species and their hybrids), Tilapiines (Oreochromis Sarotheroden and Tilapia species), Osteoglossidea (Heterotis niloticus) and Common carp (Cyprinus carpio) are currently cultured commercially while others are incidental in the ponds.

Historically, the first attempt at Catfish Farming was in 1951 at a small experimental Station in Onikan, Lagos, Nigeria (Longhurst, 1961). Anetekhai, et al. (2004) reported that catfish farming in Nigeria started in 1951 with the construction of Panyam Catfish Farm located in the present day Plateau State in the North Central part of Nigeria. What is discernible in these views is that aquaculture started in different parts of the Country about the same period. Olaniyan (1961) and Ajayi (1971) pointed out that Panyam (Northern Nigeria) experience was based on the use of Cyprinus carpio, while Onikan experimentation was conducted using Tilapia species. At the onset (1951-1971), Catfish Farming was dominated by Government and its agencies (State and Federal) with direct involvement in Catfish production. They gave technical assistance in the construction of ponds and provided inputs (fingerlings, feed etc). Between 1971 and 1981, Government established demonstration farms in the West (Ibadan and Akure) and East (Umuna Okigwe, Itu and Opobo).

Other projects included the establishment of four zonal seed production and training centres in Oyo (South-West), Umuna Okigwe (South-East) Panyam (North- East) and Mando- Kaduna (North-West) between 1978 and 1980. These projects were partly sponsored by the Federal Department of Fisheries and UNDP. The UNDP contribution was derived from the Freshwater Fish Farming Development and Demonstration Project-UNDP/FAO /79/059. Other efforts to promote aquaculture in the Country included the establishment of more Fish Seed Centres by the Federal and State Governments, in other parts of the Country .In addition, the African Regional Aquaculture Centre (ARAC) at Aluu, Port Harcourt, was established with the assistance of FAO. The centre provided research support and training for aquaculture development in Africa South of the Sahara.

River Basin Development Authorities (RBDA) were established to run commercial Catfish Farms and prove the commercial viability of aquaculture as part of their functions. At inception, some of the RBDA Farms were successfully managed as a result of counterpart funding received from the various Stake holders and skill of the expatriates which were attached to these projects nationwide.

During the period 1981 to 1991, efforts to stimulate interest in aquacuculture yielded dividend and many private investors and State Governments went into Catfish Farming. However, it became obvious within the period 1991 to 2001 that aquaculture must be seen and managed as a business concern as akin to animal

husbandry, crop production and other sub-sectors of Agriculture. The picture became clearer by the marginal success of Government Farms especially Agricultural Development Programmes (ADP) in most of the States in spite of the huge support by World Bank. As at today, the position is that while Government provides enabling environment (development of roads, signing of international agreements etc), the private sector is charged with commercial production.

There exists Tilapia production farms which have just been commissioned in Bayelsa State and are intensively managed. These were said to have been constructed at a cost of about ten million US dollars.

2. ANNUAL PRODUCTION TREND OF CATFISH IN NIGERIA (2001-2012)

Presented in table 1 are estimated catfish production from aquaculture between 2001 and 2012. These estimates were derived from data provided by the Federal Department of Fisheries under the Ministry of Agriculture. The current available national data date back to the year 2012 and are indicative that over 253,898 people are employed in this sub-sector and contribute about 253,898 metric tonnes of catfish to the food security of the Nation. This translates to about $846,326,667) with additional ($432,163,334) from restaurant and eatery operations.

Table 1: *Estimated Catfish production (metric tonnes) and job creation from catfish in Nigeria (2001 -2012)*[1]

Species	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Clarias gariepinus	19518	24530	24542	35160	45084	67662	68100	115000	137516	180482	199015	228508
Clarias hybrid	390	491	491	703	902	1353	1362	2300	9168	12032	13268	15234
Heterobrachus sp	1464	1840	1841	2637	3381	5075	5108	8625	6112	8021	8845	10156
Total	21372	26861	26874	38500	49367	74090	74570	125925	152796	200535	221128	253898
Total job creation- production and marketing	21372	26861	26874	38500	49367	74090	74570	125925	152796	200535	221128	253898

- Hybrids: these are crosses between Clarias and Heterobranchus longifilis or Heterobranchus bidorsalis
- Selling price of catfish at farm gate N500/kg; Exchange rate of Naira to a dollar is N170=$1

2.2 Catfish Farming Systems in Nigeria

With the development of hatchery technique of producing the fingerlings (the young of catfish which is a major input in the production chain) of Clarias species and their hybrid, the Clariids (1990 to date) have become the main farmed fish species and accounts for about 90.8% (by weight) fish produced from aquaculture in Nigeria. There are two major stages of production:

i. These are in the hatchery where fingerlings and juveniles are produced
ii. Ponds (Earthen, concrete tanks, fibre glass tanks, cage culture, intensive recirculation and flow through systems) where the fingerlings are reared to table-size(1to 1.2kg in tour months with good feeding).

2.2.1 Hatchery

A catfish hatchery is a complex structure consisting of overhead tanks, series of tanks set up in such a way that the water flows through tanks where eggs are incubated, hatched, and the hatchlings fed and raised to fingerlings. These hatcheries are either flow-through (99%) or recirculation systems (1%).

2.2.2 Production of Table Catfish

This phase involves growing of the fingerlings/juveniles to table size catfish and it takes place in different water holding systems. These systems are the earthen ponds, concrete ponds, fibre glass tanks, cages,the intensive recirculation systems and any other containers that can hold enough water to keep the catfish alive. The earthen ponds as the name implies is a result of earth movement resulting in a water holding depression. The water could be introduced through rainfall, borehole, and reservoir or through seepage. After careful preparation (Liming, fertilizing) the catfish is stocked and fed to table size(1-1.2kg in four months with good feeding) for the market.

[1] *Figures were computed from FDF data. There may be discrepancy with that of the FDF since Hepsetus odoe , is not taken to be currently farmed in Nigeria and data for H. odoe were expunged.*

2.2.3 Concrete tanks

These are similar to ponds but the walls are either of concrete or blocks filled with cement mortar. Most of them are surface tanks and thus easy to drain (plate 1).



Plate 1: *A farm consisting of earthen, concrete and collapsible ponds*

2.2.4 Intensive recirculation and flow through systems

The two are basically similar and very close to the tank system. However as the name implies recirculatory systems are equipped with bio filter which purifies the water for reuse, thus making it possible to stock up to 200-400 catfish per square meters depending on the level of management. The flow through system is not equipped with a bio filter. The water flows in and it is allowed to drain out without recirculation.

2.2.5 Cages

These are ponds made of netting enclosure and suspended in a natural water body, stocked with fish, fed to table size. Cages can be constructed of bamboon, wooden or metal frames supported on floating drums etc

2.3 Production Models

The production models as currently practiced across the country are described thus and depicted in figures 2-6 and Plate 2.

i. Homestead catfish farming (Backyard farming) This programme promotes families to build and operate fish ponds in their residence using simple production techniques such as vat (wooden structure and water proof materials).
ii. Integrated farm: This is a combination of catfish ponds+ plantain+ coconut+ pineapples+ cassava etc
iii. Hatchery combined with grow out earthen ponds/concrete
iv. Public/Private/Cooperative Partnership: This model is based on establishment of a main farm (central farm) funded by government but managed by private sector that services smaller farms (satellite farms) through provision of input such as juveniles and feeds on credit. The satellite farms grow out the juveniles supplied to them. At the end of the production cycle, the satellite farms make repay to the central farm using fish.
v. Concrete/earthen pond
vi. Stand-alone concrete tank/fibre glass

vii. Mixture of concrete and earthen pond grow-out
viii. Catfish/Hospitability/Recreation Business

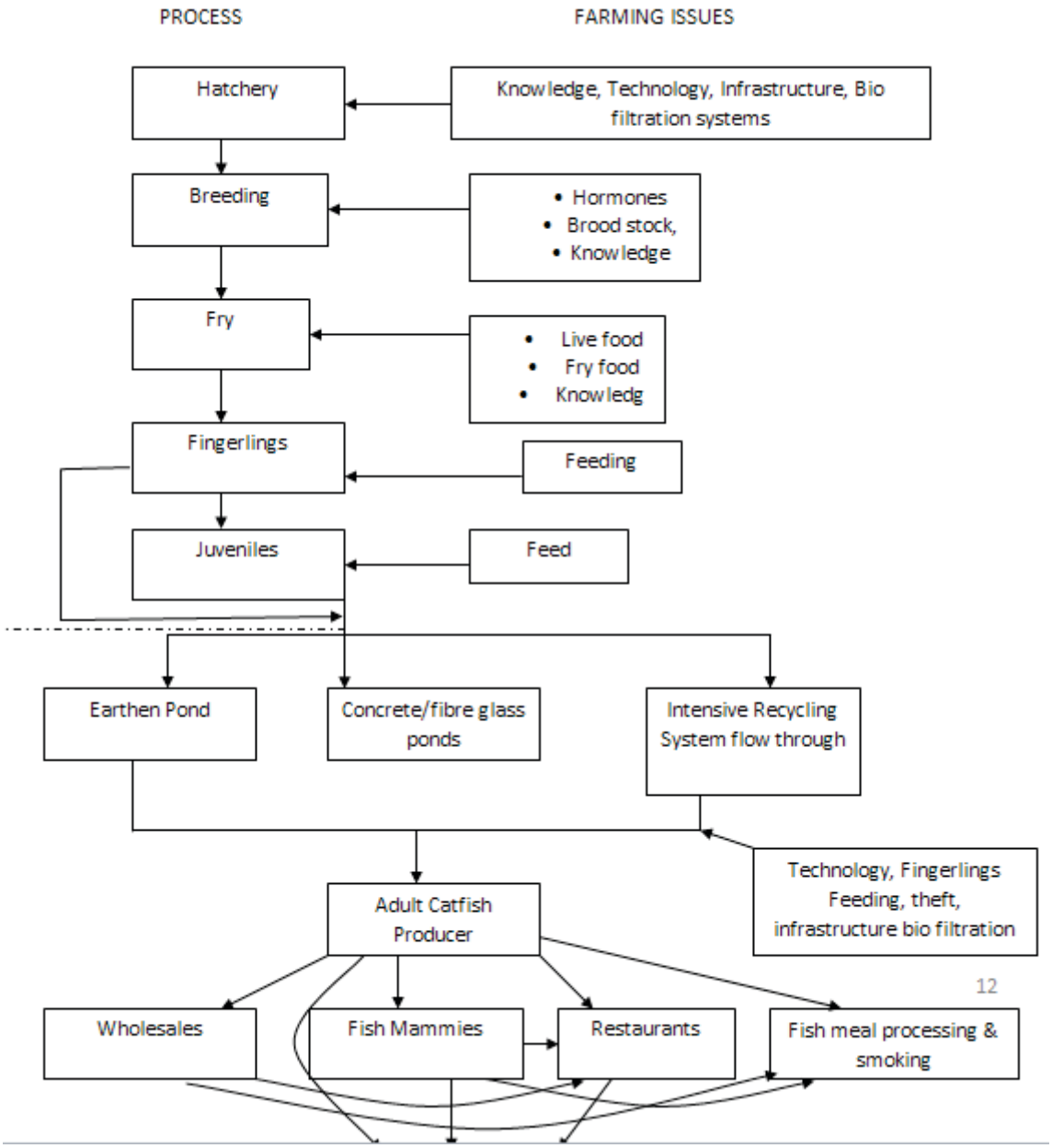


Figure 1: *Catfish concept to Consumption flow chart*

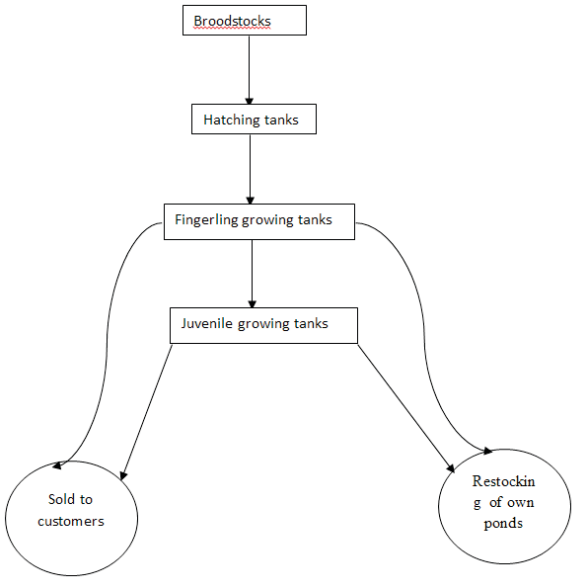


Figure 2: *Hatchery combined with grow out earthen ponds/ concrete*

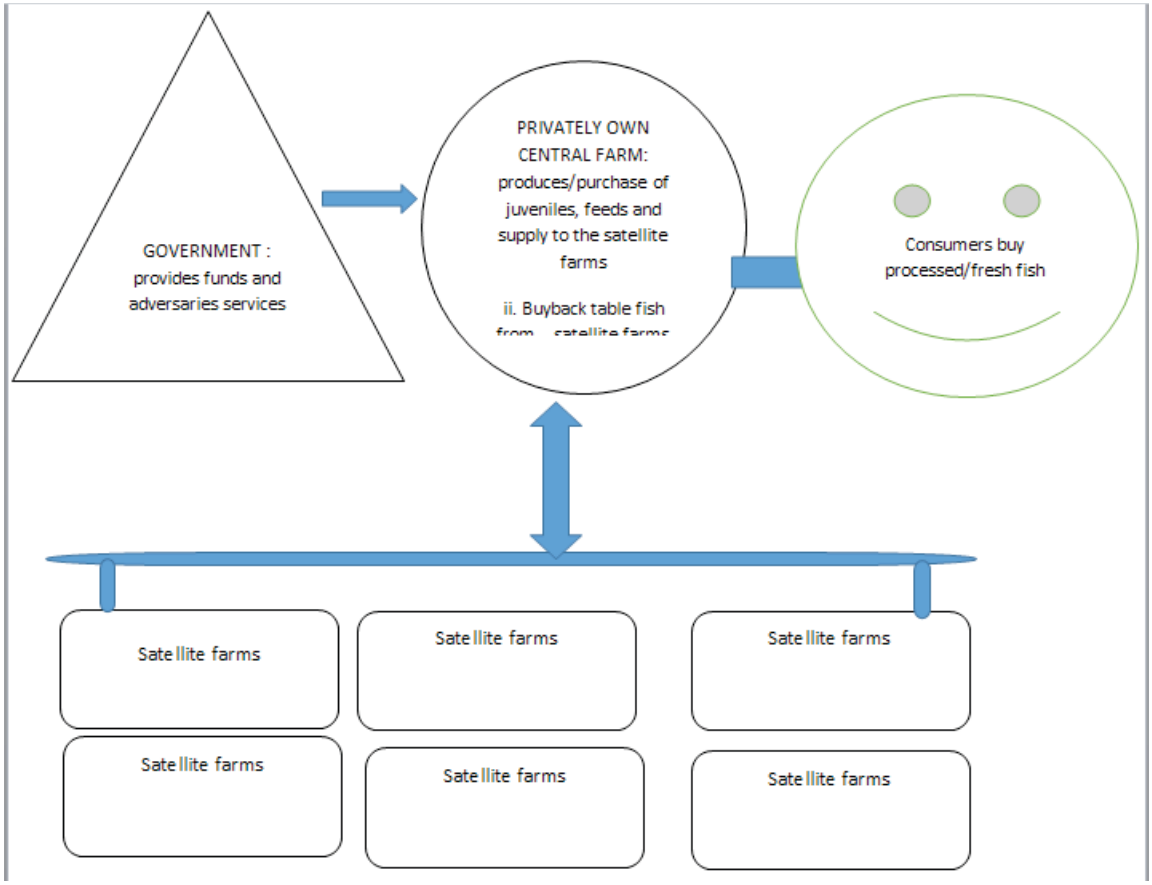


Figure 3: *Public/private/cooperative partnerships*[2]

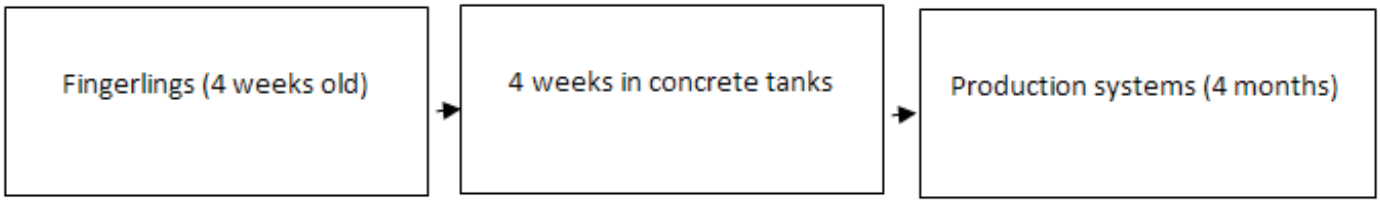


Figure 4: *Concrete/earthen pond model (table catfish production model)*

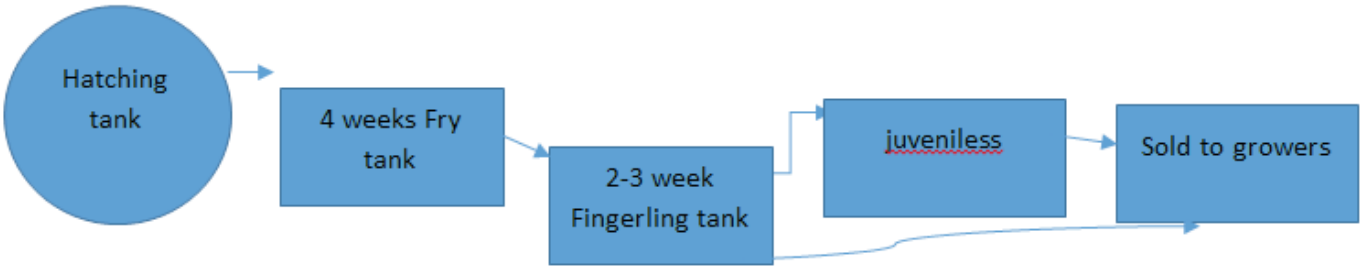


Figure 5: *Hatchery Model*

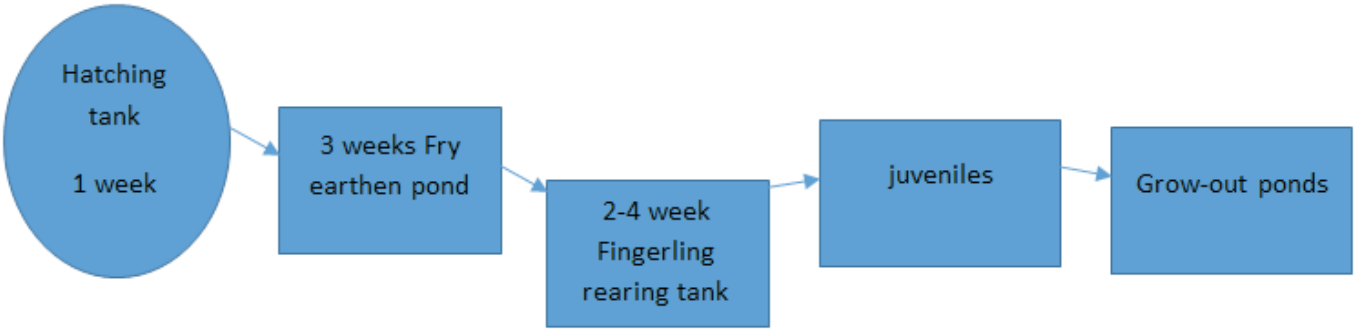


Figure 6: *A model combining hatchery with a mixture of concrete and earthen pond grow-out.*

[2] *Satellite farms are owned by cooperatives who pay for input supplied to them from the main farm with table fish produced.*

This model (Plate 2) combines recreation with catfish farming to make more profit. The catfish is kept alive and on the request of the customer who points at the desired size, the catfish is killed, prepared into catfish soup and served with beer. The price varies with size.



Plate 2: *Catfish/ Hospitality/Recreation Business*

2.4 Supporting facilites

2.4.1 Fingerling Production

Most Farms in Nigeria are able to produce fingerlings for their own use. The excess produced are sold to other farmers who are unable to produce. The unit cost of production of fingerling ranges between N4 to N6 ($0.02 to 0.04) depending on the efficiency of the producer or the method in use. It is cheaper to use earthen ponds and grow faster within the earthen ponds but opened to high risk of predation from birds and frogs which may be prevented if the pond is well netted (Plates 3 &4). Production ranges from 2000 for backyard Hatcher to 300,000 fingerlings for major Hatcher per month. The markets for fingerlings are mainly Lagos and other Western part of the Country, Abuja, Delta and Imo States. Most customers from Delta State buy hybrid fingerlings (a cross between Heterobranchus and pure Clarias).

2.4.2 The stocking density

The common stocking practice is monoculture using catfish. The stocking density varies from one to ten catfish/m2 in earthen ponds. It is better to use juveniles for stocking if your operating system is earthen pond since juveniles are older, stronger, and can withstand more stress and survive more with shorter grow out time to attain table size. In tanks, the stocking density is higher ranging from 10 to 40/m2. The flow through and recirculation systems were observed to stock highest and could stock as high as 100 to 300 catfish/ square meter when using floating pellets to feed. Very few farms, about 2% of the farms visited had Heterotis and Tilapia mainly Oreochromis niloticus.

2.4.3 Feed

Catfish feed is the most important and critical input to achieving success in catfish farming after stocking of good quality juveniles that will respond faster. It constitutes over 80% of cost of production. They are sourced mainly from foreign Countries like Holland, USA, Germany, India, and Brazil etc. The price ranges from N250-N350/kg and can be higher when there is scarcity. There are also local producers but the locally produced feeds are yet to be perfected and are equally expensive. The local feeds has low digestibility, poor

feed conversion efficiency with majority of them sinking to the bottom. In addition, the pelleting is rough and irregular in shape.



Plate 3: *Juveniles of Clarias gariepinus*



Plate 4: *Well protected earthen pond with net to avoid predation of fingerling/juveniles*

Table 2: *Some of available fish feeds in Nigeria.*

S/N	FEED NAME	PRICE/BAG (N) of 15 kg	PRICE/ KG (N)	CONTACT ADDRESS	PHONE No	
1	VITAFEED	3800-4000	253-267	KM 17, ZAWAN ROUNDABOUT, JOS, PLATEAU COUNTRY	08064536323	*www.grandce-reals.com*
2	SABINA	4000	267	ABATIOR OKO-OBA, AGEGE NI-GERIACOUNTRY	08032514402	*www.sabina-pad.come*
3	AQUAFEED	5000	333	24, MONTGOMERY ROAD, YABA NIGERIACOUNTRY	08039419045	*www.shepherd-health.com*
4	PIRA	3900-4050	260-270	Mogiana Alimentos, S/A Rua deas Mognolias, 2405 Jardim das Bandei-nas campinas-SP	08031845933	*int.catfish-dish@gmail.com*
5	COPPENS	5150-5500	343-367	NA	NA	*www.coppens.com*
6	RAANAN	4500	300	ROUNDABOUT GARAGE, BAD-AGRY NIGERIACOUNTRY.	08033323097	*NA*

NA *Not available*

2.5 Processing

Major form of processing are smoking and drying. Refrigeration or freezing is scarce since the catfish can be alive over a week in a bow of water with regular changing of water. Smoking is done using fire wood or charcoal as source of energy. The catfish is usually smoked until the moisture content is reduced to about 20 -30% depending on number of hours spent in drying.

Modern smoking kiln has been developed by NIOMER and are already in use. This smoking kiln is said to have capacity for smoking about 200 kg of catfish/day using charcoal as source of energy.

The simple processing stages (Plates 5&6) in the plant include a reception tank-where in the catfish is washed with salt solution, transferred to stainless steel table, degutted, washed and packaged in sacks of 20 kg and thereafter stored in cold room and deep freezers.



Plate 5: *Reception tank inside a processing plant in Osun State.*



Plate 6: *Processing tables in the processing plant (Note that the plant is not running due to shortage of funds)*

N.B the fish is transferred to the processing table where the fish is slaughtered, degutted, washed with salt and packaged for market.

2.6 Transportation Systems

2.6.1 Fingerlings and juveniles

Fingerlings and juveniles are transported from hatchery to grow out farms in 50 liter jerry cans. A 50 liter jerry (Plate 7) can will contain between 2-3 thousand fingerlings while it can accommodate 1,000 juveniles. The plastic thanks containing juveniles are loaded in buses or cars for transportation to the various destinations. When the distance between the hatchery and the farm is a long journey, a drop of palm oil to reduce foaming is added to each jerry can. Some hatchers at this point add analgesics and anti-biotic (a practice the competent authority has criticized and discouraged as a result of possible residue) as a form of anti-stress and prevent infection respectively in the cause of transportation. Additional jerry can /plastic tank containing clean water from which clean water can be added to replenish the ones carrying the juveniles. In some State, modern fish haulage systems (Plate 8) were observed and are equipped with fiber glass tank and aeration systems.



Plate 7: *Local method of catfish transportation systems*



Plate 8: *Modern transportation method of catfish transportation systems*

2.6.2 Table sized catfish:

At the Farm gate, the catfish purchased is sorted, kept in plastic basins. Each basin contains between 30 to 40kg of catfish, covered with jute bag to prevent the catfish from escaping. The catfish buyers either use motorcycles and Marwa (tricycle) when the distance is short (less than 40km) and quantity purchased is not much (30-60kg). The big buyers use cars or buses (for 100-1400kg and above). The basins are arranged

in the buses and taken to the various destinations. When in group, particularly the small buyers, the cost of transportation is shared. The catfish can be in these basins and transported over 500km to regional markets. When smoked, the catfish are packed in cartons and transported to the various destinations.

2.7 Available technologies and environmental practices

Technologies in use are environmentally friendly but majorly crude. There has not been known negative environmental impacts on man and his environment. However, there has been introduction of an exotic species (Pangasious sp) whose environmental impact on the indigenous species is yet to be determined. Existing systems when adopted and practiced in peri-urban without good drainage may results to discharged waste water flooding the roads and source of offensive odor to neighbors. The environmental issues are minimized in the recirculatory systems which are also in operation in the country although an expensive technology.

2.8 Disease control mechanisms

In the past disease outbreak has not been a major concern. However, within the past 4 months (since about September ,2013) there has been a general report across the country of inability of producers to produce fingerlings and juveniles due to mass mortality when the fries are about 2-4 weeks old. The true course of this mortality has not been fully diagnosed. While a school of thought is of the opinion that it is due to nutrition others believe it is as a result of climate change resulting in increased temperature which can triggered off stress and low resistance to any disease causative agents.

2.9 Genetic engineering

Existing genetic manipulation is the hybridization of Heterobrachus bidosalis/longifilis with Clarias gariepinus. The offspring of this crossing is more meaty, cannibalistic, harder than any of the parent but less fecund. However, the growth disparity within a cohort is high and the ecological impact to the environment is yet to be assessed. The potential for further development in area of genetic engineering is high. It is most likely to develop sterile male with growth superiority, less aggressive and reduction of the time to get to table size.

2.10 Environmental sustainability:

The catfish is indigenous to the country and well adapted to the environment. Prior to this time there has not been any report of ecological damage. The available technologies for the production system (earthen and concrete ponds etc) are very environmentally friendly. The input (fingerling, feeds) does not in any way contain material hazardous to man and it environment. It is gender sensitive providing investment at all levels of the value chain with no risk of HIV and other disease infection.

2.11 Lessons to be drawn from these practices

i. Use of indigenous over exotic species: The success of the indigenous species in driving the industry is important considering the fact that exotic species such as the common carp and channel catfish that were introduced in the 60 and 70s failed. Again, recently, Pangasious sp a voracious species with negative potential in the habitat has been introduced and may not be as successful as the local species.
ii. Industry should be private sector driven: Government has learnt from the past where it was involved in direct production and advisory with the consequence of failure in the production and has decided to hands off in the business of production. Private sector operated farms are more successful. They are profit oriented and take quicker decisions. However, there are some private public partnership that are funded by government, managed by private sector. In this arrangement a central farm is in place which provides input to the satellite farms. The issue in this arrangement is that the central farm or main farms are critical to the survival of the satellite farms. It is therefore advised that they should not be over centralized.

iii. Development of industry should encompass all the stages of the value chain (figure 7): Emphasis has been on production. The private sector needs to be actively engaged in processing marketing and target both local and international levels with the supporting structures and facilities developed alongside by Government.

iv. Defined standard of product quality: Definition of standard to ensure uniformity in quality product delivery must be carried out. This will ensure best practices

v. Inadequate knowledge of genetic engineering: Techniques of genetically manipulating fingerlings production to get super catfish as have done with Tilapia including cryopreservation/gene bank are not available. This is an area that can enhance growth without necessary expanding infrastructure and systems.vi. Disease outbreak: There is possibility of disease outbreak. We must be proactive and prepared to tackle the problem should it come up.

vi. Data collection: There is no single farm with comprehensive data in all the farm visited. Data expected such as stocking density, farm size, number of ponds, feeding practices, number of workers, product plans and output are not in existence within the farm and the offices of the public sector. This data are significant for planning and policy making. Most farmers are unable to take accurate records and need training on simple book keeping. Such training can be offered by research institute and some consultant that are knowledgeable in this area. Personnel in the ministry equally require training on farm data collection and collation which is expected of them during extension visit.

vii. Capacity development along the entire value chain: There is lack of knowledge across the catfish value chain, notably in fingerling production, stocking density, feeding rates and quality of feed required by the fish, water quality management, harvesting, processing, packaging, and transportation and consumers preferences. There is the need to deliver knowledge to operators in these aspects if the catfish industry will continue to progress.

viii. Regulatory frameworks (by public sector) supports the catfish: Farmers are expected to carry out EIA when the project exceeds 50 HA and impacts on mangroves. Agricultural inputs enjoy free import duties but the government agencies make this difficult for operators to enjoy. The Agricultural loans are expected to attract 20% interest, when the loan are repaid draw back on the interest at 40% is expected to be returned to the farmer. Farmers have access to the government officials through their cooperatives association and extension agencies from the farmer.

ix. Women and youth: There are youth academy programs that are not gender biased but specialized in training men and women that have just graduated from secondary and tertiary institutions in all aspects of fish farming including production, processing and marketing.

x. Lessons learnt from feeds: Nigeria is not self -sufficient in fish feed. In Nigeria every fish is eating including trash fish which are used as condiment and flavoring foods. The waste generated from the shrimp and trawl industry is minimal relative to the level of aquaculture operations. It is therefore pertinent that fish meal must be imported to meet local demand for making fish feed. What is important is that the public sector ensures removal of various import taxes from fish meal and ensuring compliance by its enforcement agencies.

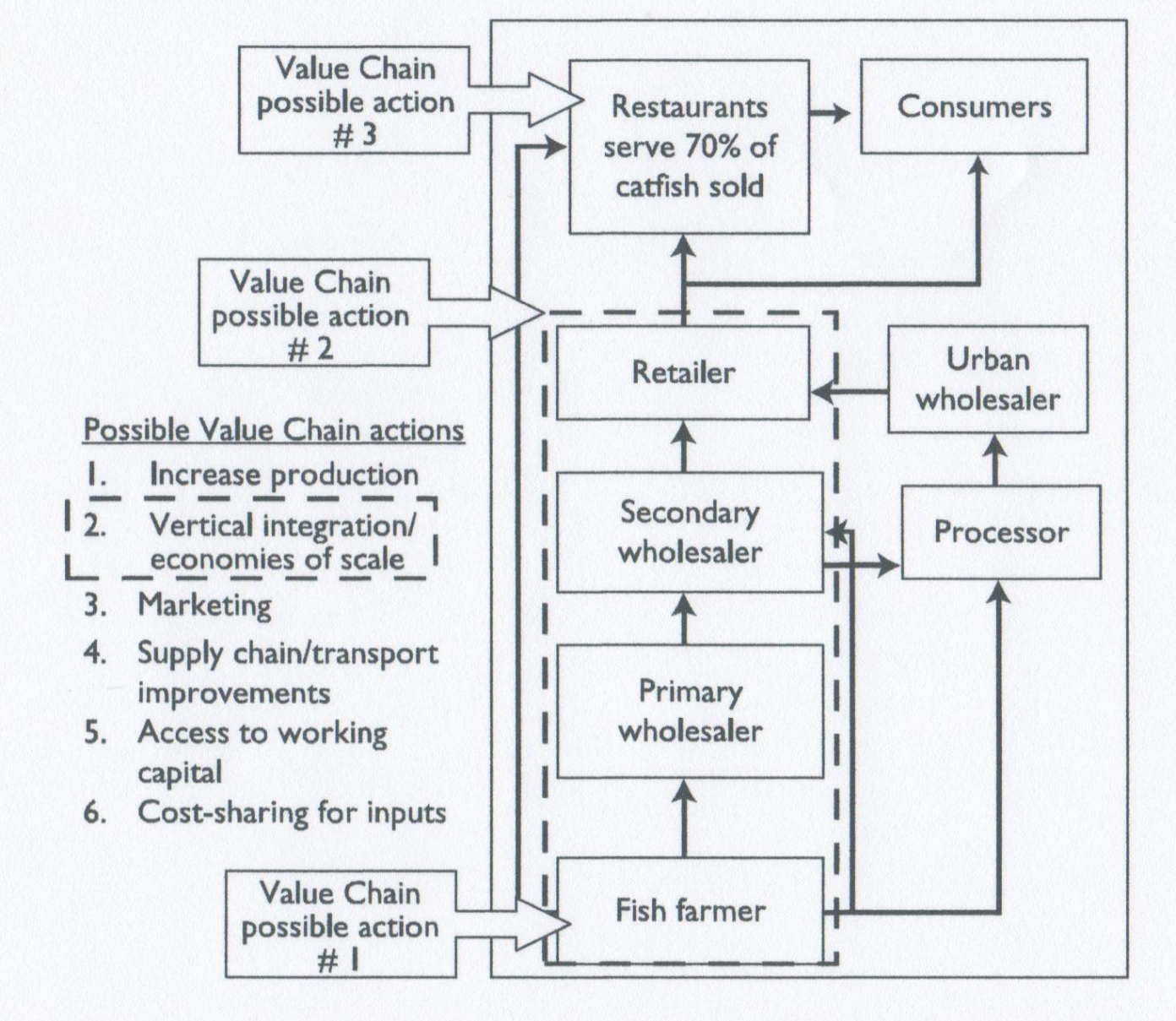


Figure 7: *Value Chain (Erik, 2010)*

2.12 Assessment of roles of relevant Collaborating institutions in the country

2.12.1 Government:

The Federal Department of Fisheries under the Ministry of Agriculture and Rural Development, Department of Fisheries in the states' Ministry of Agriculture and Rural Development and relevant department in the Local Government Councils are in charge of promotion, management and administration of aquaculture at various levels. At the federal level the Ministry is headed by a minister and at the state level, a Commissioner. In addition, there exist the legislature and the judiciary arm of governance. The Department of Fisheries is headed by a Director with Aquaculture as a Unit. Policy formulations on aquaculture, programme development, regulations, quality control, bilateral relations are the responsibilities of the Federal Government of Nigeria. A National Fisheries Development Committee (NFDC) whose function is to assist FDF to articulate policies and programs exist. This is a forum for all stake holders in Fisheries and Aquaculture. It meets twice in a year to consider policy, management, development, research, training, sector constraints, etc. All policies and programs go through National Council on Agriculture (NCA) for final input before government approval.

2.12.2 Non-governmental associations

Some associations (NGOs) play complementary roles in the development and sustenance of aquaculture

industry in the country. The key players are

- Fisheries Society of Nigeria (FISON)
- Catfish Farmers Association of Nigeria (CAFAN)
- Association of Fish Importers of Nigeria (AFIN)
- Catfish Export Development Association (FEDA)
- Association of Aquaculture Farms and Agro-processors of Nigeria (AAFAN)

2.12.3 Training and research

Research and manpower development in aquaculture are carried out by the Government through:

- the existing Federal Fisheries Research Institutes (Nigerian Institute for Oceanography and Marine Research (NIOMR), Lagos; College of Fisheries and Marine Technology(NCFMT), Lagos and, the National Freshwater Fisheries Research Institute (NIFFR), New Bussa.
- the federal and state universities
- other existing Federal Colleges of Fisheries offering aquaculture.
- workshop, seminars and training programmes organised by the Department of Fisheries, NGOs and private organisations.
- Colleges of Education.
- Youth Academy:

Various youth academy programs in agriculture with aquaculture (Plates 9&10) component do exist in the country. They are mainly own by the public sector with about 30% jointly own by the Public/ private sector. Admission is for every youth that can read and write. On resumption, the trainees are enlightened on the various agricultural programmes and are allowed to receive on farm training in their areas of interest.

A monthly transport allowance and up keep varying from N10, 000 to N20,000 ($58.82 to 117.65) is offered depending on the State. Osun State for example offers N4, 000 for transportation/month and N10, 000 for up keep. In addition, a candidate is given N10, 000 loans to pilot an enterprise in a chosen area. If within the period of training (6 months-9 months) the candidate is able to pay up, subsequent loan is scaled up by ten. At graduation, the grandaunts are individually certificated, formed into cooperatives of 10 in number per cooperative and are assisted to register and a certificate is issued. These cooperatives become the launching pad for input delivering and financial assistance.

This programme is very promising given the fact that knowledge and skill have been major constraints in aquaculture. However, the trainers require further on farm training since most of them attended conventional tertiary institutions where on farm training is less emphasized.



Plate 9: Youth academy in session



Plate 10: *Osun State Youth Academy*

2.13 Policy and institutional frameworks involved in aquaculture sector.

This is contained in the new policy on Agriculture. 'According to the document, 'the new agricultural policy will herald in a new policy direction via new policy strategies that will lay the foundation for sustained improvement in agricultural productivity and output. The new strategies involve:(i) Creating a more conducive macro-environment to stimulate greater private sector investment in agriculture;(ii) Rationalizing the roles of the tiers of government and the private sector in their promotional and supportive efforts to stimulate agricultural growth; (iii) Reorganizing the institutional framework for government intervention in the agricultural sector to facilitate the smooth and integrated development of the sector; (iv) Articulating and implementing integrated rural development programs to raise the quality of life of the rural people; (v) Increasing budgetary allocation and other fiscal incentives to agriculture and promoting the necessary developmental, supportive and service-oriented activities to enhance agricultural productivity, production and market opportunities; and (vi). Rectifying import tariff anomalies in respect of agricultural products and promoting the increased use of agricultural machinery and inputs through favorable tariff policy' (appendix 1).

The policy goes further to define the expected responsibility to different layers of governance NGOs and private sectors. A Fisheries Act (2014) effective from 2014 was ascended to by the President (appendix 2). The country is signatory to the United Nation code of conduct for responsible fisheries and we are expected to comply.

2.14 Evaluation of institutional capacities (including human) to support sustainable aquaculture development

Federal, state and local governments and NGOs have been very instrumental in creating awareness and development of the catfish industry. There are policies in place to allow catfish farmers draw loan with 20 % interest rate and a drawback of 40 % of the interest after payment. The loan is guaranteed by the federal government through the Central Bank of Nigeria. Some states directly give loans to operators at different levels of the value chain and benefactors are expected to make loan repayment using products. The recovery rate has been very high but known farmers are able to benefit thereby applying the funds to non- fish farming related activities.

Other programmes are:

- the Growth Enhancement Support which provide subsidy for farmers at 50% cost price with the Federal and State Government providing 25% each.
- Establishment of staple crop processing zone. The thrust of the policy is to identify areas in the country that are competitive in aquaculture and in conjunction with state government with financial support from institutions e.g World Bank, infrastructure are developed in such area and private sector is invited to invest in processing the products for local consumptions and exportation.
- the development of marketing board and organisation of players into cooperatives has been proposed

However, comprehensive data on number of farms, investors, workers, quantity of juveniles produced per year, table catfish produced, quantity of catfish exported and efforts to certificate the country for exportation has been very poor. There are inadequate skills by trainers in the areas of extension services and genetic engineering.

2.15 Strategies

In the past aquaculture was treated as a developmental program with government directly involved in the production of inputs, table catfish, training, policy formulation and implementation including infrastructural development. The strategy in place now is for aquaculture to be considered a business venture with all tier

of governments providing enabling environments while production at all levels of the value chain is private sector driven. The transformation agenda has clearly identified all stages of interventions in the value chain and put policies in place to achieve the set goals. These include as earlier stated the Growth Enhancement Support (GES), staple crop processing zone (SCPZ), establishment of commodity corporations and the Nigeria Incentive Risk-Sharing Agricultural Lending (NIRSAL). Areas with comparative advantage in Aquaculture have been identified and Aquaculture Processing zones are to be established in these areas. Interested local and foreign entrepreneurs can key into the program.

2.16 Policy and legislative frameworks in place that underpin aquaculture development

Policy framework for the fisheries without distinction between capture and culture started in 1941 and has undergone review through different phases according to Ovie and Raji (2006). The latest review i.e. fisheries policy has distinction between fisheries and aquaculture and is in line with the United Nations' code of conduct for responsible fisheries which recognizes diseases control, ban on the use of additives, carrying out impact assessment before a project is established. Nigeria is a member of World Trade Organization (WTO) and has ratified the Convention on Biological Diversity (CBD) and the Bio-safety Protocol. Nigeria has equally ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

At the regional level, Nigeria is signatory to the Revised Convention for the Establishment of the Niger Basin Authority. Land based aquaculture projects that will result in clearing of mangrove swamp forests up to or more than 50 ha are expected to do a full EIA with a minimum content addressing description of proposed activities, potential environmental impact and alternatives, possible mitigation measures, uncertainty degree and reliability of the information, potential effects in other States, Local Governments or in foreign territories, brief and non- technical summary of the study. When the project is less than 50ha and is not likely impacting on mangrove, only a screening (potential effects of the project and mitigation measures) is required.

There is active enlightenment campaign on the requirement to export aquaculture product to the European Union (EU) due largely to a large market perceived to be in Europe. In this regards several officers in the Federal and State Department of Fisheries have been sent on training abroad and others trained by EU officers locally to understand requirement for the exportation of processed catfish products to EU countries.

2.17 Roles of private and public sector in sector development and lessons to be drawn in the sector development in the country.

The public sector provides enabling environments (infrastructure of roads networks, provision of electricity). It equally designs and offers models of catfish farming such as homestead farming (backyard farms), development of catfish farm estate, and catfish market as commonly found in Lagos State. In some part of the country particularly Osun State area, a major farm deploring total technology approach is in existence. This farm has a hatchery, feed mill, processing plant. It is a joint venture between the State Government and private sector. While government funds the project and offer management advice, the private partners are responsible for the production and distribution of juveniles and feeds to the satellite farms which are owned by individuals and cooperatives. At the end of the production cycle, the table catfish is bought back by the central farm, sold fresh or processed and sold.

2.18 Levels of public and private sector investments in the sector

There are no existing data on the total financial investment in the Aquaculture industry particularly at the infrastructure provision level which are carried out for general use but are not distinctively provided for Aquaculture. A guess estimate at running cost put the running cost of producing 1 kg of catfish in the range

of N320-350 depending on the part of the country. The lower values are obtained in the western part of the country and the highest value in the northern part due largely to cost of transportation of feeds from the port.

Table 3: *Estimated total cost of producing 1 tons of catfish in Nigeria*[3]

Item	N
Average capital cost/tons/	35,000=00
Average variable cost/tons	335,000=00
Total cost/tons	370,000=00

2.19 Prevailing enabling environment, incentives and any factor stimulating or impeding investments in the sector

There is the willingness on the part of government to provide enabling environment through provision of land, infrastructural development, provision of security, protection of the industry, reduction of tax on imported Aquaculture input, training, public enlightenment, provision of dedicated fund, insurance scheme, input delivery, and by back program such as school meal component of Osun State.

2.20 Review of post cultural operations

i. Harvesting,

The catfish attains marketable size usually between 4-7 months depending on the richness of food supply and the number of catfish/area of the pond at which they would have attained average weight of 1-1.2kg. Harvesting is manual using drag net and highly labor intensive. During harvesting the catfish is manually sorted and stored in either concrete or fiber tanks for sale. For a recirculatory system, the outlet is opened and the water and the catfish flow out into a net which allows the water to move out and the catfish retained in the net. There is no automation such as vacuum harvesters.

ii. Processing

After harvesting buck (about 60%) of the catfish is sold live to market mammies (major distributors) at the farm gate, transported to market where they are purchased by eateries, bukas (local eateries), and individuals. Others buy to process by means of smoking and drying using wood or charcoal.

iii. Marketing and distribution systems and their effectiveness

For the fresh catfish, the wholesale buyer comes to farm gate to buy. They could sell to minor distributors who further sell to the retailers. The individuals and retailers who can afford the transportation are also allowed to buy at the farm gate. The major markets are located at the urban centres. With respect to packaging, the fresh catfish are packed into bows (30-40kg/basin), covered with jute bags and taking to the market.

The smoked and dried ones are packed in baskets, covered by non-absorbents paper, tied and transported to major urban centres such as Lagos, Enugu, Abuja and other. Those processing with intention of meeting international standard pack the dried catfish in nylon. The nylon contains 2-3kg that are further kept in cartons which are again stored in master cartons (10-20kg) (Plate 11).

There exist unofficial collection points for dry catfish where they are transported to other countries for further export or consumed directly by the countries. Nigeria earns less and does not receive any credit for the production and exportation but the Countries which further export the product do. Examples of such centres and destinations are shown in Table 4:



Plate 11: *A packaged catfish*

Table 4: *Major collection point for dry catfish in Nigeria for onward movement to other African countries.*

Town	State	Destination
Nsidung	Cross River	Cameroon
Badagry	Lagos	Ghana
Idiroko	Ogun	Ghana
Onitsha	Anambra	Niger, Tunisia, Libya, Egypt etc

As one of Government's functions, more and modern collection centres should be developed and promoted. Catfish export Development Association could equally be promoted and empowered through certification for export.

2.21 Data collection and record keeping at farm level and across the reporting hierarchy

Generally there are no comprehensive records detailing farm operations available within the farms and with the competent authority. Most operators stock, buy feeds and feed without keeping farm records (stocking density, daily feed intake, mortality, water temperature, feed conversion ratio, growth rate, production cost and sales records).There is need to have farm managers, owners of catfish farms and trainers in the institution have knowledge of rudimentary principles of farm records and management practices. It is important to develop manuals detailing required data in farm management.

3. CONSTRAINTS AFFECTING GROWTH AND DEVELOPMENT OF FISH FARMING IN NIGERIA

Generally, the challenges earlier identified by Anetekhai et al. (2004) persist and are summarized thus

i. Marine aquaculture:

The Nigerian shoreline has inherent problems, which limit the scope of marine aquaculture development. Ninety-five percent of near-shore continental shelf which would naturally support aquaculture is very shallow (Awosika et al., 2002) thus limiting available area for marine aquaculture to about 48.695 ha. These suitable areas for aquaculture are equally rich in crude oil and most of the oil wells and refinery operations are located in these areas and are therefore prone to oil pollution. For economic and logistics reasons, most industries are located along the coast. Effluents from the industry are discharged directly into the marine environment. In addition, the Nigerian coastal waters experience very high wave action and it is not protected from poaching and other forms of intrusions. Through careful and systematic control and regulation of pollution, it is quite possible to put 48.695 ha of the Nigerian shoreline to marine culture, which is essentially cage-based. It must be noted that cages are highly susceptible to damage by high wave action for which the Nigerian territorial water is known. Cage construction and feeding are expensive, the skilled manpower and fingerling to run the system are scarce. However, there are pilots cage culture in the inland lakes and some states in the country. Preliminary report shows that catfish grow faster in cages when they are given same type of feed.

ii. Brackish aquaculture

This form of aquaculture is carried out in area of high salinity fluctuation, tidal influence and requires recruitment of species that can withstand frequent salinity variation and water depth. The cultural requirements of the fin and shell fish species that can be farmed in this area of the country are yet to be understood. Furthermore, the terrain does not allow easy movement of construction equipment. During construction, earthen material for the construction of dykes is hardly adequate thus the pond often gets flooded when there is an unusual heavy down pour of rain. Most of the water is through seepage and draining requires pumping.

iii. Fresh water aquaculture

This is the most understood form of aquaculture in Nigeria and least problematic in relation to marine and brackish culture with catfish as the choice candidate for now. There has been attempt at doing polyculture but the catfish is very voracious and eats up all the tilapia before they attain table size. Commercial viability is not assured However, there is need for further improvement on current level of knowledge to increase production. Areas of particular interest are inadequate inexpensive quality feed, fast growing fingerlings, Live food for feeding fries, brood stock management knowledge, Cheap funds, disease diagnosis, genetic engineering to enhance growth performance, high cost of construction, pilfering, etc.

a. Hatchery operation:

- a major constraint which has become obvious is lack of good quality parent stock. As a result, the hatchers buy table catfish with eggs from the open markets or Catfish Farms and use for hatching. Most of these catfish are not matured and the yield is poor. Use of an immature parent results in low hatching and survival.
- in addition there are no standard definitions for fingerling, post fingerlings, juveniles etc. For example the chance of survival of the catfish is higher when it is introduced into the pond as juvenile rather than fingerling. Yet most farmers choose to buy fingerlings that are cheaper rather than buy juvenile with higher rate of survival and more expensive.
- inadequate infrastructure both at the farm level and access to the farms. Most of the road are trunk D

thus difficult and unmotorable and in most cases a factor which discourages the younger and willing graduates from catfish farming.

- Non-availability of live foods and locally compounded feeds for fry. Artemia which is the main food required for the fries-fingerlings are still being imported to the country, this add up to the cost of hatchery operation.

b. Broodstock:

- expensive good quality feed :There are no quality feeds developed for broodstocks.The hatchery operators tend to feed their broodstock with feed meant for grow out.This affects the quality and quantity of eggs produced by the catfish i.e. reduction in ratio of eggs/gram body weight and hatchability.
- Limited management knowledge: Hatchery operators use fish that are immature (less 1 year and less 1 kg in weight) resulting in low quality eggs which may hatch but die within a week.This has become a common occurrence in the hatchery business.There has equally being inbreeding with farmers selecting from the same cohort.
- Water quality: Broodstock requires water with temperature in the range 27-30C, pH 6.5-8.5, with water depth of about 1-2 meters.This conditions are usually absent during the dry season and harmattan when temperature could drop below 25C in the night and as high as 33C in the afternoon. This affects the physiology of the catfish, feed conversion to egg efficiency, resulting in very low gonado-somatic index. In extreme situation, there will be complete egg reabsorption.This is one of the reasons why catfish are seasonal in carrying eggs when not properly managed. It is suggested that competent hands be identified by the public sector to handle broodstock production and management.

4. AREAS WHERE IMPROVEMENTS CAN BE MADE

4.1 Standardization and Certification

One of the ways of ensuring the supply of good quality input and end products is to establish standards (aquaculture models suitable to different water bodies and soil type in the country) and offer the models to entrepreneurs for adoption. The standards must include terms and their definitions such as given in Table 5

Table 5: *Suggested terms and definitions*

Terms	Definition
Fingerling	Young of a cat catfish that is four weeks old minimum and weighs minimum of 5g.
Juvenile	Young of catfish that is 6 - 10 weeks old and weighs 6 - 10 g.
Parent stock/Brood stock	A parent catfish that is not less than one year old and weighs minimum of 1kg. Standard dimensions of different technological models (earthen ponds, concrete ponds, fibre glass etc), stocking density and production chain and the critical control points must be defined.

4.2 Education on all aspects

One of the key constraints that is glaring in the business of Catfish Farming is lack of on farm training and practical skills in:

- Identification and sources of good quality brood stocks and fingerlings/juveniles
- Making of good feed.
- Feeding and stocking practices
- Record keeping
- General Farm Management
- Processing and value addition etc

Training as is already done by the Federal Department of Fisheries and other relevant agencies and NGOs should continue but the emphasis should be on Farm/Factory training rather than classroom lectures. The training must not be limited to the farmers. The trainers themselves must be trained both at home and abroad in modern technique and recent advances in catfish farming, storage, processing, marketing and production of input such as fingerlings and feed including book keeping and assessment of cost of production and cost saving technique. It is when the farmer is able to make profit that he/she can stay in business. It is therefore recommended that the Government partners with Farms that are well managed and have technical competence in this regard.

4.3 Exportation

With continuous expansion, intensification and efficiency, the local markets may become saturated. Foreign market should be identified and their certification requirements carefully studied and delivered to entrepreneurs. In this regards, Government is expected to embark on certification spelling out conditions and standards. Such exercise will prepare the farmer and processors including the marketers for certification at the international level and gaining access to highly lucrative international markets.

4.4 Tax Reduction

Sale becomes easy when the product is good and not overpriced. The culture based catfish in Nigeria is certainly overpriced due largely to high cost of feed as a result of different import taxes imposed on either finished product or raw material for feed production. Government could work out a mechanism of intervening to ensure catfish feed or raw material for catfish feed production are effectively allowed to come

into the Country with minimal taxes imposed. The Catfish Farmers Association can exploit the possibility of appealing to the Federal Government to remove all taxes from catfish feed. The association could nominate one or two of the major importers and one local producer based on the understanding that the price will come down to initial price minus duty. There may be some dishonesty but it can be resolved with proper self-policing. In addition to getting catfish feed cheaper, more members will join the association.

4.5 Value Addition

i. Smoking and Drying

Modern smoking and drying methods are recommended to meet international standards. Environmentally sustainable form of energy is recommended. The conditions for certification are outlined in appendix 3.

In adopting smoking and drying, the gut of the catfish has fat which constitutes about 20% total body weight of the catfish. This provides another opportunity for the development of small scale industry. The products that can be generated from the oil as raw material include body cream (Plate 12) cooking oil and soap. Other components of the gut which can be recycled and incorporated into catfish/chicken feed include the intestine, liver and other visceral organs.

ii. Other Products from Processed Catfish

With respect to value addition, the catfish is considered a source of raw material rather than finished product (figures 8,9&10). The raw materials expected from the catfish are:

- Catfish oil
- Catfish fillet (a. regular fillets b. shank fillets {regular fillet with the belly flap or nugget removed} fillet strips and nuggets {belly flaps and other fillet trim}
- Catfish head
- Catfish viscera for catfish, poultry and livestock meal
- Catfish caviar

From the above raw material, it is expected that the following small scale industries will spring up:

- Catfish oil for cooking
- Catfish oil as catfish grease for catfish and other food processing plants.
- Catfish oil for pharmaceutical industry
- Catfish oil soap and body cream – cosmetics industry
- Catfish Steaks (flesh) – Fast food / Supermarkets
- Minced Catfish (flesh) – Fast food / Supermarkets
- Catfish Loaf (Breaded flesh) – Fast food / Supermarkets
- Catfish Dogs (flesh similar to hotdogs) – Fast food / Supermarkets
- Catfish Flakes and Crackers - Confectionery industry
- Canned Catfish Industry



Plate 12: *Body cream made from catfish oil*

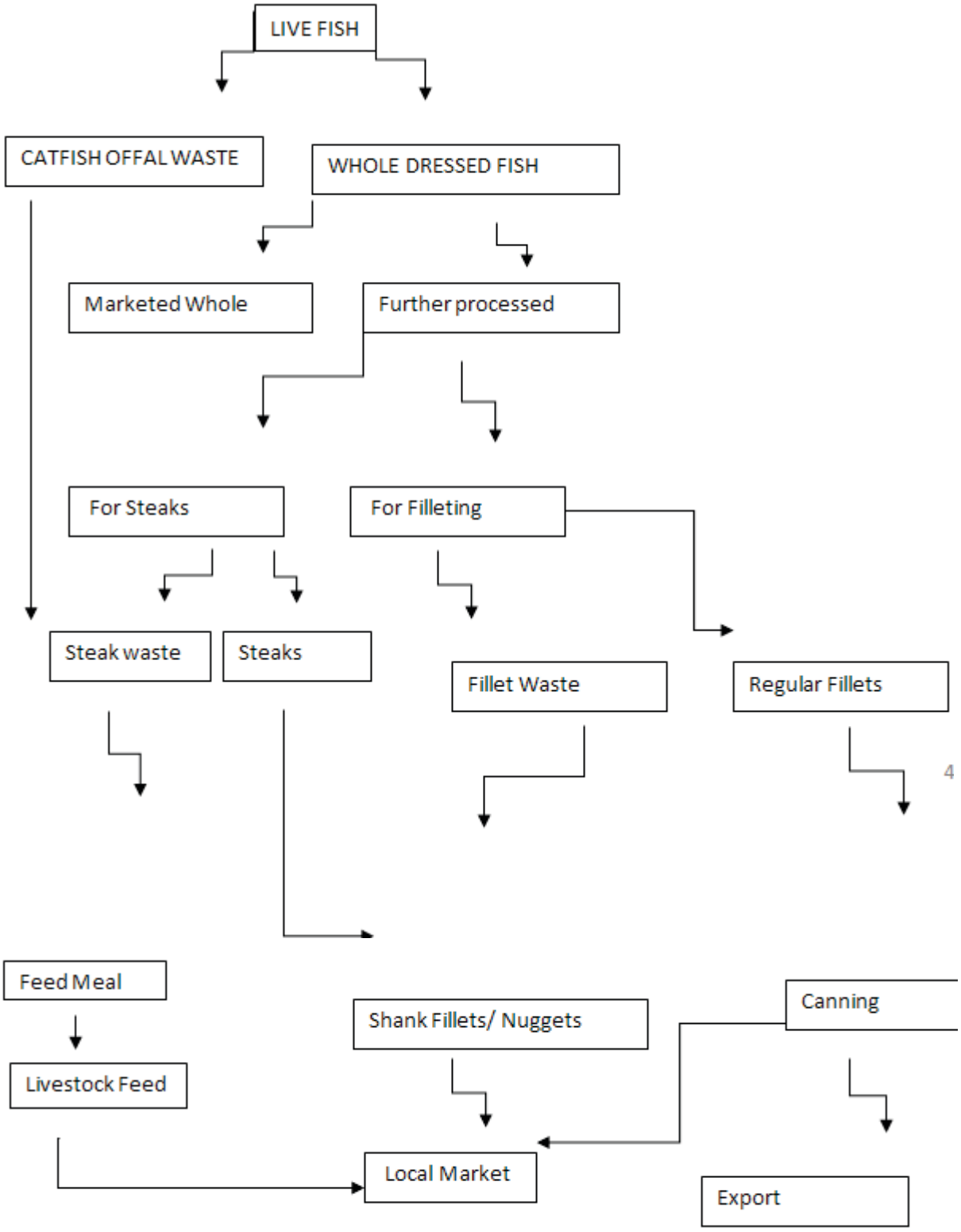


Figure 8: *Proposed live catfish (Clarias, Heterobranchus and Hybrids) raw material production chain*

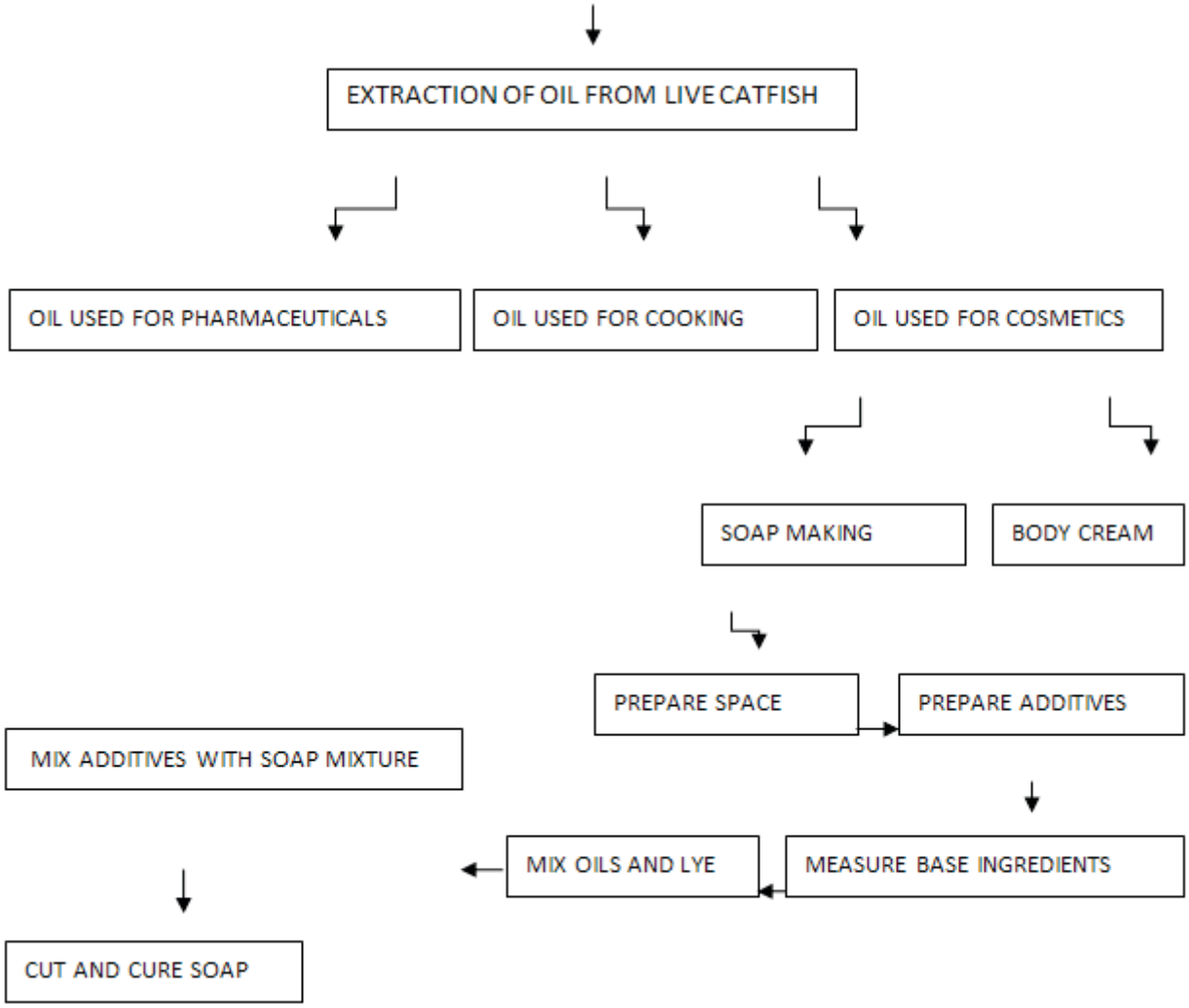


Figure 9: *Proposed processing chain for soap from catfish oil*

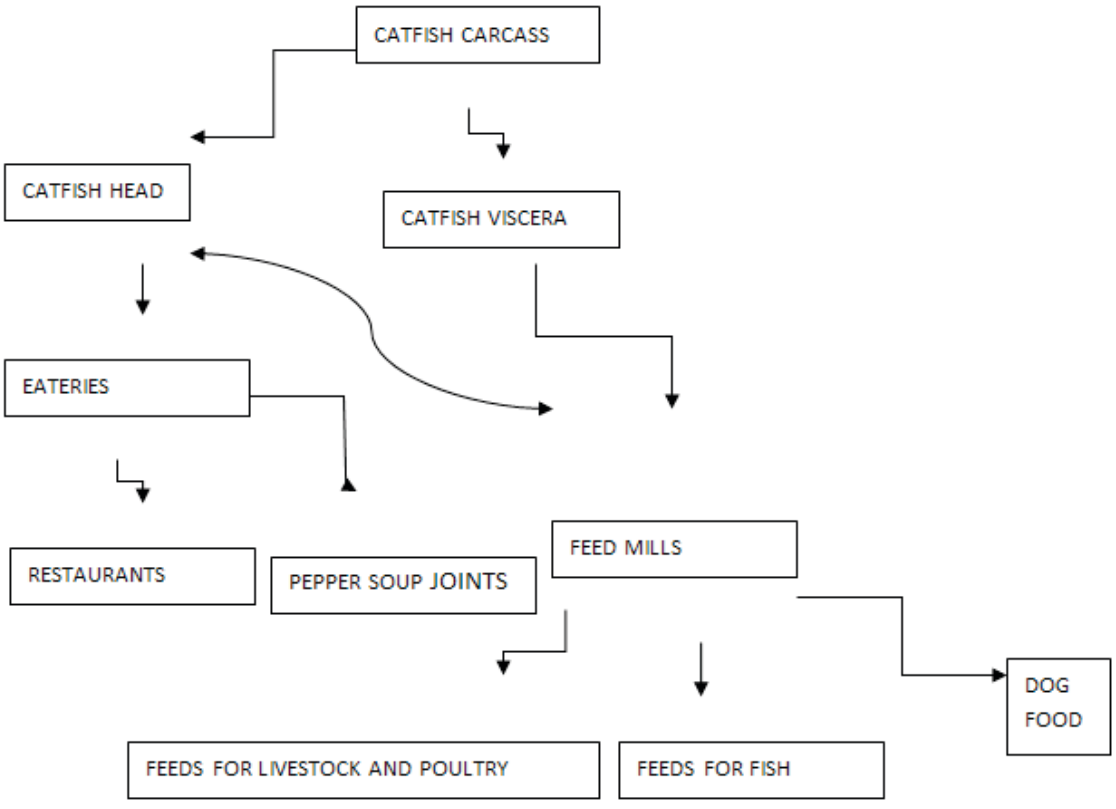


Figure 10: *Carcass*

4.6 Centralized Marketing

Some states have already embarked upon the construction of a centralized catfish market. The centralized catfish market must be managed in such a way to ensure that the market women are not displaced from marketing of catfish. All the stake holders should come together to work out the best ways to market catfish as a product. A key role that the Department of Fisheries should play is to coordinate the stake holders and initiate a joint forum among the producers, the marketer and suppliers. Naturally, there should not have been any marketing problem if production has been done at a good cost. Efforts should be made to decrease cost of production through reduction in cost of funds, easy access to good feeds at good price, development of knowledge on all aspects of production in order to operate at optimum cost.

4.7 Cost of Funding

A suggested model to reduce cost of funding is as shown in figure 11. The Government provides a dedicated fund managed or controlled by a reputable bank. The funds are delivered to farmers, input sellers, catfish marketers and processors at an administrative cost of 2%.

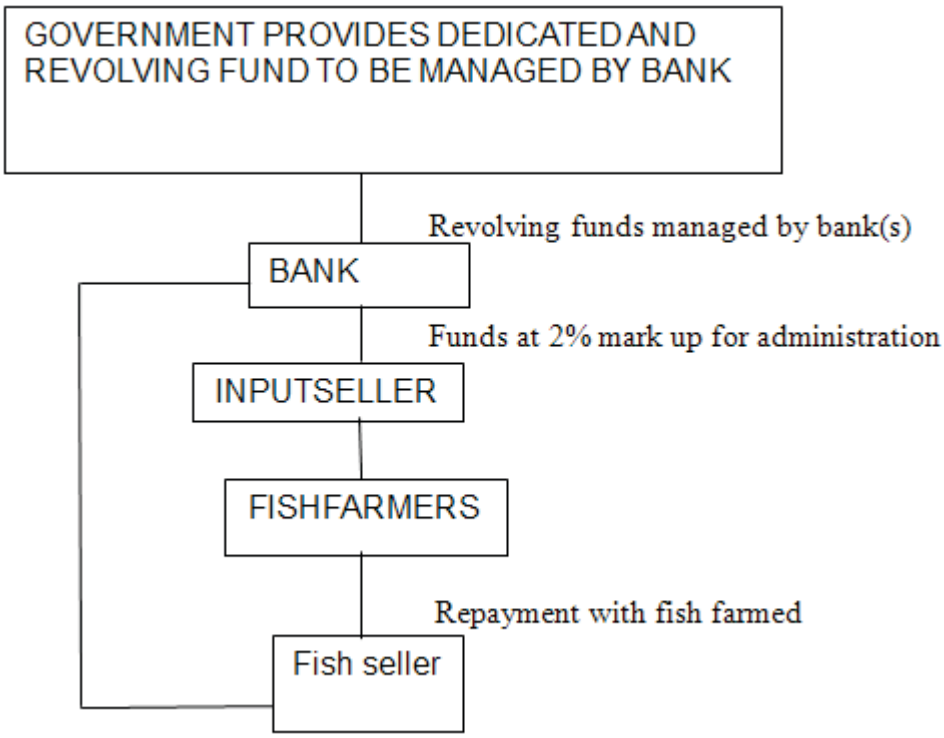


Figure 11: *Recommendation on organisation and management of dedicated funds provided by Government*

Agriculture lending scheme through which funds are made available to Catfish Farmers at a lower interest rate and guaranteed by the Federal Government of Nigeria through the Central Bank exists and it is recommended. For Feed Producer and Processors, opportunity exists in the Bank of Industry to raise loan.

4.8 Business Plan

Majority of the Farmers had no business plan. One of the requirements for certification and enjoying tax rebates should be presentation of a business plan.

4.9 Lowering Cost of Production

The major constraint facing marketing is the price which the main buyers from the farm gate consider too high. One of the ways of encouraging fast sales is to ensure that the price of catfish is reasonable. To achieve this, cost of input must be reasonably low particularly feed. It is necessary to encourage local production.

4.10 Catfish Health and Diseases

With intensification, there may arise the associated problem of disease outbreak. The public sector has been very proactive in this direction and provided regular training on catfish disease diagnoses, prevention and treatment through the Universities. Manpower development is needed in this aspect.

4.11 Marketing Officers

There is a sale model in Badagry Local Government Area that is working well. It is built around individual(s) who have the trust of both the farmers and the buyers and act as liaison person(s) between buyers and producers. When the catfish is ready for sale, the farmer calls on the liaison person who makes all the arrangement for the catfish buyers to come to the farm.

4.12 Development of marketing corporations

Private sector driven- marketing organizations should be encouraged to grow the aquaculture sector.

4.13 Broodstock Development and Management:

Parent stocks are central to successful aquaculture business. Research to develop good parent stock should be encouraged.

4.14 Phased Production

Farmers are advised to stock their ponds in the Farms in phases so that sales can be spread out.

4.15 Synergy in Different Programmes and Policies

There are very good programmes which the State has put in place to achieve increase in local production of catfish from aquaculture in line with import substitution policy. It is necessary to harmonize these programmes and policies. Below is a suggested possible synergy that can exist among import substitution policy, staple crop processing zone and export free trade zone (Figure 12).

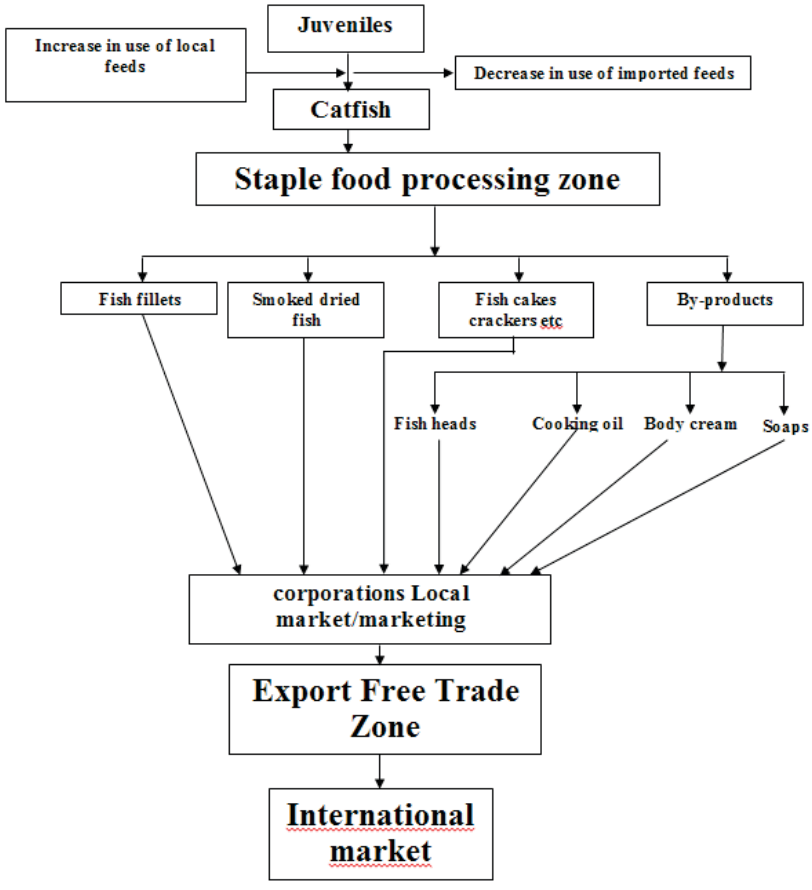


Figure 12: *Synergy amongst staple processing zone, export free trade zone and import substitution policy*

In conclusion, there is an urgent need to address the critical keys to aquaculture business success which are

- Pay more attention to collection of accurate data on catfish farming, particularly data on number of farms, production outputs and the sociological data on the farmers.
- Catfish farming should be seen as a business irrespective of the scale of operation. To drive this there could be the establishment of rural enterprise and aquaculture programmes in each of the states.
- Deliver knowledge to operators in all aspect of catfish farming (fingerling production, outgrowing, general management, record keeping etc). This can be done through partnership with existing successful farm.
- Train the trainers locally or internationally on certification, export requirement, standards and best practices. It is expected that the trainers so trained will train the operators
- Commission research to develop technological packages of possible small scale industries (cooking catfish oil, soap, body cream etc) which will ultimately be offered for adoption by entrepreneur.
- Existing parent stock are genetically weak leading to mass mortality of fishes. Development and introduction of virile, meaty fast growing parent stock that can withstand harsh environmental stress must be carried out through research.
- Mount pressure on the competent authority (FDF) to pursue the process of harmonization of Nigeria for export to other countries.
- Actively synergize import substitution policy, Staple food processing zone and export free trade zone.
- Removal of remove import taxes from feed and products for the manufacture of feed.
- Intensify campaign to encourage cluster operation by stake holders by delivering assistance through cooperative/associations.

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APPENDIXES

Appendix 1: The New Nigerian Agricultural Policy

The previous agricultural policy document was finalized in 1988 and was supposed to remain operative until the year 2000. Hence, in year 2001, a new policy document was launched. The new policy document bears most of the features of the old one, but with more focused direction and better articulation.

Objectives of New Agricultural Policy

In a broad sense, the objectives of the new agricultural policy (as stated in the document) are very similar to those of the old one. They include: (i) The achievement of self-sufficiency in basic food supply and the attainment of food security; (ii) Increased production of agricultural raw materials for industries; (iii) Increased production and processing of export crops, using improved production and processing technologies; (iv) Generating gainful employment; (v) Rational utilization of agricultural resources, improved protection of agricultural land resources from drought, desert encroachment, soil erosion and flood, and the general preservation of the environment for the sustainability of agricultural production; (vi) Promotion of the increased application of modern technology to agricultural production; and, (vii) Improvement in the quality of life of rural dwellers.

Key Features of the New Policy

The key features of the new policy are as follows:

- Evolution of strategies that will ensure self-sufficiency and improvement in the level of technical and economic efficiency in food production. This is to be achieved through (i) the introduction and adoption of improved seeds and seed stock, (ii) adoption of improved husbandry and appropriate machinery and equipment, (iii) efficient utilization of resources, (iv) encouragement of ecological specialization, and (v) recognition of the roles and potentials of small -scale farmers as the major producers of food in the country.
- Reduction of risks and uncertainties in agriculture, to be achieved through the introduction of a more comprehensive agricultural insurance scheme to reduce the natural hazard factor militating against agricultural production and security of investment.
- A nationwide, unified and all-inclusive extension delivery system under the Agricultural Development Programs (ADPs).
- Active promotion of agro-allied industry to strengthen the linkage effect of agriculture on the economy.
- Provision of such facilities and incentives as rural infrastructure, rural banking, primary health care, cottage industries etc, to encourage agricultural and rural development and attract youths (including school leavers) to go back to the land.

Major Content of the Policy Framework

The policies cover issues on (i) agricultural resources (land, labor, capital, seeds, fertilizer, etc) whose supply and prices affect the profitability of agricultural business, (ii) crops, livestock, fisheries and agro-forestry production, (iii) pest control, (iv) mechanization, (v) water resources and irrigation, (vi) rural infrastructure, (vii) agricultural extension and technology transfer, (viii) research and development (R&D), (ix) agricultural commodity storage, processing and marketing, (x) credit supply, (xi) insurance, (xii) agricultural cooperatives, (xiii) training and manpower development, and (xiv) agricultural statistics and information management.

The successful implementation of the agricultural policy is, however, contingent upon the existence of appropriate macroeconomic policies that provide the enabling environment for agriculture to grow in equilibrium with other sectors. They affect profitability of agricultural enterprises and the welfare of farmers through their effects on the flow of credit and investment funds, taxes, tariffs, subsidies, budgetary allocation, etc.

The New Policy Direction

According to the document, the new agricultural policy will herald in a new policy direction via new policy strategies that will lay the foundation for sustained improvement in agricultural productivity and output. The new strategies involve:(i) Creating a more conducive macro-environment to stimulate greater private sector investment in agriculture;(ii) Rationalizing the roles of the tiers of government and the private sector in their promotional and supportive efforts to stimulate agricultural growth; (iii) Reorganizing the institutional framework for government intervention in the agricultural sector to facilitate the smooth and integrated development of the sector; (iv) Articulating and implementing integrated rural development programs to raise the quality of life of the rural people; (v) Increasing budgetary allocation and other fiscal incentives to agriculture and promoting the necessary developmental, supportive and service-oriented activities to enhance agricultural productivity, production and market opportunities; and (vi). Rectifying import tariff anomalies in respect of agricultural products and promoting the increased use of agricultural machinery and inputs through favorable tariff policy.

Roles and Responsibilities of Stakeholders

The new agricultural policy has spelt out definitive roles and responsibilities for the federal, state and local governments as well as the private sector in order to remove role duplication and overlapping functions among them. The revised roles and responsibilities are outlined as follows:

The Federal Government

Under the new policy regime, the Federal Government shall be responsible for:

1. the provision of a general policy framework, including macroeconomic policies for agricultural and rural development and for the guidance of all stakeholders;
2. maintenance of a reasonable flow of resources into agriculture and the rural economy;
3. support for rural infrastructure development in collaboration with state and local governments;
4. research and development of appropriate technology for agriculture, including biotechnology;
5. seed industry development, seed law enforcement and seed quality control;
6. support for input supply and distribution, including seeds, seedlings, brood stock and fingerlings;
7. continued support for agricultural extension services; (viii) management of impounded water, supervision of large dams and irrigation canals and maintenance of pumping facilities;
8. control of pests and diseases of national and international significance and the promotion of integrated disease and pest management;
9. establishment and maintenance of virile national and international animal and plant quarantine services;
10. maintenance of favourable tariff regime for agricultural commodities;
11. promotion of the export of agricultural commodities through, among others, the Export Processing Zones (EPZs); (xiii) establishment of an agricultural insurance scheme; (xiv) maintenance of a Strategic National Grain Reserve for national food security;
12. coordination of agricultural data and information management systems;
13. inventorization of land resources and control of land use and land degradation;
14. training and manpower development;
15. participation in the mapping and development of interstate cattle and grazing routes and watering points; promotion of micro-and rural credit institutions;
16. promotion of agricultural commodity development and marketing institutions;
17. maintenance of fishing terminals and other fisheries infrastructure, including cold rooms;
18. promotion of trawling, artisanal and aquaculture fisheries;
19. promotion of fish feed production;
20. protection of Nigeria's Exclusive Economic Zone for fisheries resources; and

21. periodic review of agreements on international agricultural trade.

The State Governments:

The state governments will be primarily responsible for:(i) the promotion of the primary production of all agricultural commodities through the provision of a virile and effective extension service; (ii) promotion of the production of inputs for crops, livestock, fish and forestry; (iii) ensuring access to land for all those wishing to engage in farming; (iv) development and management of irrigation facilities and dams; (v) grazing reserve development and creation of water access for livestock; (vi) training and manpower development; (vii) control of plant and animal pests and diseases; (viii) promotion of appropriate institutions for administering credit to smallholder farmers; (ix) maintenance of buffer stocks of agricultural commodities; (x) investment in rural infrastructure, including rural roads and water supply in collaboration with federal and local governments; and, (xi) ownership, management and control of forest estates held in trust for local communities.

Local Governments:

The local governments will be expected to take over progressively the responsibilities of state governments with respect to:

1. the provision of effective extension service;
2. provision of rural infrastructure to complement federal and state governments' efforts;
3. management of irrigation areas of dams;
4. mobilization of farmers for accelerated agricultural and rural development through cooperative organizations, local institutions and communities;
5. provision of land for new entrants into farming in accordance with the provision of the Land Use Act; and,
6. coordination of data collection at primary levels.

The Private Sector

According to the policy document, since agricultural production, processing, storage and marketing are essentially private sector activities; the role of the private sector will be to take advantage of the improved enabling environment provided by the public sector for profitable agricultural investment. In particular, the public sector is expected to play a leading role with respect to:

1. investment in all aspects of upstream and downstream agricultural enterprises and agribusinesses, including agricultural commodity storage, processing and marketing; (ii) agricultural input supply and distribution;
2. the production of commercial seeds, seedlings, brood stock and fingerlings under government certification and quality control;
3. agricultural mechanization;
4. provision of enterprise-specific rural infrastructure; and, (vi) support for research in all aspects of agriculture.

Key Agricultural Development, Supportive and Service Delivery Programs of the Federal Government

Following the redefined roles and responsibilities of tiers of government and the private sector, the main thrust of federal government programs and activities will be directed at obviating the technical and structural problems of agriculture in the following respects.

Development Programs and Activities

These will include research and development, (including biotechnology development), animal vaccine production, veterinary drug manufacture, agro -chemicals manufacture, water management, adaptive technology promotion, and the creation and operation of an Agricultural Development Fund.

a. *Research and development, including biotechnology:* The effort in this direction is to finance agricultural research, including biotechnology and the breeding of predators for the biological control of crop pests which the private sector may not be willing to invest in due to the high capital outlay and a relatively low return from agricultural investments. The output of the research system will be disseminated by the extension services of the states and local governments to farmers, ranging from small-scale to large-scale farmers.
b. *Animal vaccine production:* The capacity of the National Veterinary Research Institute (NVRI), which is the premier institution for animal vaccine production in the West Africa sub-region, will be strengthened, enlarged and modernized in order to raise the level of vaccine production in Nigeria to a self-sufficiency level and also to cater for the entire West Africa sub-region.
c. *Veterinary drug manufacture:* A veterinary drug manufacturing outfit with the capacity to meet the needs of the West Africa sub-region will be established. Relevant agencies of government will collaborate with the private sector for the accelerated take off of the factory. Government interests in this venture will, however, be sold to the private sector in line with the privatization policy.
d. *Agro -chemicals manufacture:* Government will manufacture and promote the production of agro-chemicals by the private sector and will ensure the protection of the users, the eco-system and the environment through appropriate pesticide legislation. Effective monitoring mechanism to ensure compliance with the law will be put in place.
e. *Water management:* Currently, large dams constructed in the country have impounded alot of water with high fisheries and duck farming potentials and having the capacity for irrigation. The completion of the outstanding downstream irrigation infrastructure of the already completed large dams in the country will be accorded top priority in order to make them useful to the farmers and to maximize the benefits of the huge investments already incurred in constructing them.

Emphasis will now shift to developing small dams as a more cost effective way of utilizing water resources for irrigation in the country. The maintenance of the existing large dams will, however, continue to be the responsibility of the Federal Government. In addition, rain harvesting for irrigation agriculture is to be promoted where surface and underground water is not readily available.

f. *Adaptive technology:* Economic deregulation has increased agricultural production costs astronomically. At the same time, globalization of trade, which thrives on comparative advantage in production, makes efficiency of production and the application of economies of scale mandatory if Nigeria is to get a sizeable market share in the highly competitive global trade arena. In order to improve efficiency of production, therefore, simple labor -and cost-saving devices that are appropriate for the current level of agricultural production and processing in the country will be developed and mass-produced. The National Centre for Agricultural Mechanisation (NCAM), the institution established for this purpose, will be strengthened. Other initiatives in this direction, such as animal traction and hand tools technology development, will be encouraged.
g. *Agricultural Development Fund:* The National Agricultural Development Fund is to provide the necessary impetus for the sustainable development of the agricultural sector. It will support both public and private sectors in carrying out activities that will boost agricultural and rural development, with emphasis on all facets of agricultural research, market development, extension delivery, long-term credit, rural institutions development, and enterprise promotion. The Fund will derive its revenues from:
    i. savings from subsidy withdrawals on fertilizer,
    ii. 5 percent of the proceeds from the privatization of government enterprises,
    iii. funds from international commodity organisations,
    iv. 2 percent levy on the profits of agro-based industries,

v. 50 percent of Sugar Development Levy,
vi. 1.0 percent levy on the profits of oil companies,
vii. appropriation from government annual budget of not less than 2 percent of the total budget, and
viii. take-off grant from the federal government.

Supportive Activities

These will comprise input incentive support and commodity marketing and export activities.

a. *Input incentive support:* Government incentive support for inputs will be administered in a cost-effective and focused manner to ensure that the intended beneficiaries derive full benefit from the distribution of:
   i. seeds, seedlings, fingerlings, brood stock etc,
   ii. fertilizers,
   iii. agro-chemicals,
   iv. tractors and implements,
   v. vaccines
   vi. veterinary drugs, and
   vii. agricultural credit. State and local governments are also to be encouraged to subsidize these inputs, as an additional incentive for agriculture.

b. *Commodity marketing and export:* The development of an efficient agricultural marketing system is being promoted through the provision of adequate market information. The buyer of last resort mechanism built into the marketing system will provide price stabilization effect on the system. The three multi-commodity marketing companies already approved by government will be the fulcrum of this system. The companies which will be private sector-led and managed, but with initial substantial public sector participation, will also ensure quality management and export promotion, in conformity with international quality standards for Nigeria's agricultural commodities.

Service Delivery Activities

These activities will cover input supply and distribution, agricultural extension, micro-credit delivery, cooperatives and farmer/commodity associations, commodity processing and storage, agro-allied industry and rural enterprise development, and export promotion of agricultural and agro-industrial products.

a. *Input supply and distribution:* Government is creating the more conducive environment for profitable investments in the production and distribution of inputs such as improved starter materials, animal health drugs, fertilizers, etc. Fertilizer supply will be hinged on complete privatization and liberalization in the production, distribution and marketing of the commodity. The main role of the government will be to strictly monitor the quality standard of all fertilizers (both local and foreign) to ensure that only certified products reach the farmer. Government will also encourage the use of organic fertilizers to complement the inorganic fertilizers currently in use. The seed industry development program will be reinvigorated and community seed development programs will be promoted to ensure the provision of adequate and good quality seeds to local farmers. The organised private sector will be mobilized, encouraged and given incentives to actively participate in the production of seeds, seedlings, broodstock, fingerlings, etc, and also to be involved in out-growers mobilization.
b. *Agricultural extension :* Agricultural extension is essentially an activity that should be carried out by the lower tiers of government. But given the overriding importance of technology dissemination, all the three tiers of government in Nigeria will be involved in jointly financing agricultural extension delivery and monitoring its impact. Also, extension service delivery will be streamlined through the integration of ADP and state extension services for greater effectiveness.

c. *Credit and micro-credit delivery:* The strategies to be adopted will include:
   i. provision and improvement of rural infrastructure to attract investment and financial services;
   ii. integration and linkage of rural financial institutions to the formal banking sector;
   iii. regulating and supervising the growth of non-bank financial institutions with emphasis on savings mobilization at the grassroots;
   iv. expanding the mandate of the restructured Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) to include savings mobilization;
   v. supporting self-help groups in their savings mobilisation and credit delivery activities;
   vi. modification of the credit delivery system to include the cooperative and community-based organisations as delivery channels to reduce transaction costs; and,
   vii. modification of terms of credit such as interest rate, eligibility criteria, legal requirement, etc, to enhance access.

d. *Cooperatives and farmer/commodity associations:* Resource mobilization and the promotion of group action are the thrust of cooperative activities. This is to take advantage of group dynamics, with its concomitant mutual guarantee, as a strategy for agricultural development. Services which cooperatives can render include the administration of government incentives to agriculture, such as inputs supply, credit delivery and retrieval, commodity marketing, and the pursuit of democratic ideals, in view of the democratic principles embedded in their operations.

e. *Processing, storage, agro-allied industry and rural enterprise development:* The use of simple but effective on-farm and off-farm storage facilities and agro-processing technology will be promoted to add value to products and increase their shelf life. The Strategic Grain Reserve Scheme will be modernized, strengthened and upgraded to a National Food Reserve Program, which will enable it to handle all staples and essential food products. This will be the launch pad for the accelerated attainment of Nigeria's national food security goal. The Buffer Sock Food Storage Scheme of the states will incorporate the use of private storage facilities to maintain a national strategic stock of food that will be needed in times of national food emergencies. It is also crucial to promote and develop agro-processing in the country for the evolution of virile agro-allied industries and rural micro-enterprises.

f. *Export promotion of agricultural and agro-industrial products:* Nigeria has comparative advantage in the production of a number of exportable agricultural commodities, such as cocoa, palm produce, rubber, ginger, spices, fruits and vegetables, flowers, shrimps and ornamental fish, cassava products, hides and skin, cashew, gum arabic, groundnuts and cotton (products). In order to diversity the base of the Nigerian economy and widen the market for agricultural commodities to absorb the expected increase in production, there is need to promote the export of these agricultural and agro-industrial products. To facilitate the acceptance of Nigerian agricultural commodities in the international market, including taking full advantage of the US African Growth and Opportunity Act (AGOA), there will be need to develop appropriate capacities and institutional framework within the agricultural sector as well as in other relevant sectors to meet the Sanitary and Phytosanitary Standards (SPS) and comply with the Technical Barriers to Trade (TBT) agreements of the World Trade Organisation (WTO).

Other Policies, Institutions and Legal Framework

The range of macroeconomic and institutional policies as well as legal framework that affect agricultural investment in particular and agricultural performance in general is wide. The policies broadly cover fiscal, monetary and trade measures. There is also a large body of institutional policies that support not only the implementation of macroeconomic policies but also that of agricultural sector policies. Then, there is a set of national and international legal framework, including bilateral and multilateral agreements and treaties that provide the enabling environment for foreign and domestic private investment, promote international trade and, therefore, promote economic growth.

Environmental concern has increasingly come into focus in the design of policies for sustainable growth and development in Nigeria, as elsewhere in the world. Hence, Nigeria has now put together a set of environmental policies and strategies that are of important relevance to agriculture.

Macroeconomic Policies

The key components of macroeconomic policies are fiscal, monetary and trade policies.

Fiscal Policies: These focus on budgetary, tax and debt management policy instruments. Budgetary policy influences economic stability and rate of inflation in the economy. These, in turn, influence the climate for the flow of investment, especially foreign private investment. Tax policies that focus on personal and corporate tax rates, tax reliefs, and other tax concessions are key incentives (or disincentives) factors affecting consumption and investment decisions. A favourable corporate tax policy regime enhances after-tax profits and, to that extent, may promote increased investment. A country's external debt burden affects its international credit rating and its capacity to finance public investment. International credit rating affects the flow of foreign private investment while the level and quality of public investment directly affect the flow of both foreign and domestic private investment.

Monetary Policies: In general, monetary policies refer to the combination of measures designed to regulate the value, supply and cost of money in the economy, in consonance with the expected level of economic activity. Liquidity, interest rates and foreign exchange rates are the channels through which monetary policy influences economic activities. Liquidity is affected by money supply. Money supply influences credit supply and interest rate (cost of capital). Interest rate, in turn, influences consumption, savings and investment decisions in the economy. Basically, the existence of interest and exchange rate differentials, resulting frommonetary policy measures, induces substitution between domestic and foreign assets (foreign currencies, bonds, securities real estate, etc) as well as domestic and foreign goods and services (CBN, 1997). Since 1986, the main instruments of market-based monetary policies have included the open market operations (OMO), changes in reserve requirements and discount policy. Open market operations involve the discretionary power of the CBN to purchase or sell securities in the financial markets in order to influence the volume of liquidity and levels of interest rates that ultimately affect money supply.

The sale of financial instruments by the CBN restricts the capacity of banks to extend credit, thereby affecting inflation and interest rates. The reverse is the case when financial instruments are purchased.

Trade Policies: These are a very important component of structural adjustment policies. The main focus of trade policies is on measures to regulate export and import trade through such measures as tariffs, export and import quotas and prohibitions. They influence the investment climate in many ways. For example, a liberal trade policy constitutes an incentive for foreign investors who may need to import raw materials and / or export products. But a protectionist trade policy may also serve as an incentive for investors in non-tradable products that are largely locally consumed, or investors in import -substitute products.

Institutions

According to the World Development Report (2002), institutions are rules, enforcement mechanisms and organizations put in place in an economy. Distinct from policies that are the goals and the desired results, institutions are rules, including behavioural norms, by which agents interact, and the organizations that implement these rules and codes of conduct to achieve desired outcomes. Policies influence the types of institutions that evolve while institutions too affect the types of policies that are adopted. Appendix 4.1 presents some of the major institutions that affect or are affected by investment -related policies in Nigeria.

Investment Legal Framework

Investment legal framework provides incentives for, regulates or protects investments, especially foreign investment. According to Aremu (1997), a foreign investor is first concerned with some basic questions like: What areas of business are open to foreign participation? How easy is it to bring capital into the country and repatriate profits and capital from the country? What legal mechanisms exist to protect the investor's personal business interest? These questions underscore the importance of investment legal framework. Some of the important domestic investment legislations and international legal arrangements governing foreign private investment are as contained in the NIPC Act 16 of 1997

Environmental Policies

Environmental policies are very important for sustainable growth and development. Hence, the Federal Environmental Protection Agency (FEPA) produced a revised version of the national policy on the environment in 1999.

The goals of National Policy on the Environmental is to achieve sustainable development in Nigeria, and, in particular, to (i) secure a quality of environment adequate for good health and well being; (ii) conserve and use the environment and natural resources for the benefit of present and future generations; (iii) restore, maintain and enhance the ecosystems and ecological processes essential for the functioning of the biosphere to preserve biological diversity and the principle of optimum sustainable yield in the use of living natural resources and ecosystems; (iv) raise public awareness and promote understanding of the essential linkages between the environment, resources and development, and encourage individual and community participation in environmental improvement efforts; and (v) co-operate in good faith with other countries, international organisations and agencies to achieve optimal use of transboundary natural resources and for an effective prevention or abatement of transboundary environmental degradation.

The strategies to be adopted include:

i. addressing the issues of population growth and resources consumption in an integrated way;
ii. setting goals for the stabilization of national population at a sustainable level;
iii. integrating resource consumption and demographic goals with the other sectors and economic objectives;
iv. monitoring trends in population and resource consumption and assessing their implications for sustainability;
v. encouraging and involving the private sectors, NGOs and the public in the implementation of strategies and actions aimed at achieving stated goals;
vi. the prevention and management of natural disasters such as flood, drought and desertification that more directly impact on the lives of the populace;
vii. integration of population and environmental factors in national development planning;
viii. solving public health problems associated with rapid urbanisation and squalid urban environments;
ix. prevention of the depletion of forests through judicious search for and adoption of alternative energy sources; and
x. control of the demands and patterns of land resources usage.

An extract of the environmental policy presented in the appendix covers policies, objectives of policies and policy strategies on human population, biological diversity, natural resources conservation, land use and soil conservation, water resources, forestry, wildlife and protected natural areas, energy, environmental health, transportation, communication, and science and technology. These are the policy instruments that are considered most relevant to agricultural investment in Nigeria.

Stakeholders' Perspective on the Effectiveness of Policies, Regulations and Institutions on Nigerian's Agriculture
Opinions on the effectiveness of policies and regulations in the different areas of agriculture were sought from both policy makers and policy implementers. In general, policies aimed at stimulating on-farm production rank highest. These include those policies aimed at stimulating agricultural production for domestic market, agricultural input demand by farmers, domestic agricultural commodity trade, agricultural input supply to farmers and domestic investment in agriculture. It is evident from the ranking that the more effective policies and regulations are those targeted to upstream agricultural production activities and geared towards the domestic market. Policies geared towards enhanced post-production activities such as commodity storage, commodity processing, transportation and distribution services as well as commercialization of agriculture are generally ranked low. Except for policies and regulations on food security and poverty reduction (which are indeed offshoot of domestic agricultural production), other policies and regulations associated with improved human welfare ranked very low. But overall, policies on foreign investment ranked lowest.

From the foregoing, it can be seen that current policies are more effective in the primary production subsector of agriculture than in the downstream subsector. Impact of policies on the welfare status of the people and on the environment remains weak. In general, the thrust of the effective policies is on food self-sufficiency as most of these policies have bearing on boosting agricultural production for food self-sufficiency.

The main factors influencing the effectiveness of policies and regulations on agriculture include high demand for agricultural produce, availability of improved technology, efficient dissemination of information by the ADPs, and value added leading to improved income. On the other hand, the common factors responsible for ineffectiveness of policies and regulations, especially on the downstream segment of agriculture, include instability of the political climate, insecurity of investment, nonstandardised product quality, non-competitive nature of agricultural products from the country in the export market due to high cost of production and lack of adequate processing facilities.

Appendix 2: Fisheries Act 2014

Federal Republic of Nigeria

An Act to repeal the Sea Fisheries Act (No. 78 of 1992) and the Inland Fisheries Act (No. 108 of 1992) and to provide for the conservation, management and development of sea fisheries, inland fisheries and aquaculture and related matters.

ENACTED by the National Assembly of the Federal Republic of Nigeria.

PART 1: Introduction

Short title and commencement

1. This Act may be cited as the Fisheries Act 2014.
2. This Act shall come into force on a date to be appointed by the Minister and notified by publication in the Gazette.

PART 2: Objectives and Competences

Objectives

1. The objectives of this Act are—
   a. to promote the objectives of optimum utilisation and long-term conservation, management and sustainable development of fisheries resources and ecosystems in all fisheries waters;
   b. while recognising the needs of present and future generations to utilise those resources in order to achieve food and nutritional security, economic growth, human resource development and employment creation.

Management and control of sea fisheries

Exclusive management and control over fish, fisheries and fishing operations within sea fisheries waters are vested in the Federal Government and shall be exercised by the Minister and the Commission.

Management and control of inland fisheries

1. Management and control over fish, fisheries and fishing operations within inland fisheries waters are vested in—
   a. the Federal Government, exercised by the Minister and the Commission, in respect of fish, fisheries and fishing operations within a body of water shared by two or more States; and
   b. State Government, exercised by the State Commissioner, in respect of fish, fisheries and fishing operations within a body of water located within a single State.
2. Notwithstanding subsection (1)(b), the Federal Government shall also be responsible for national policy and matters concerning fish, fisheries and fishing operations likely to affect national policy or the national interest.
3. The term "relevant inland fishing authority" in this Act means, in relation to any particular fish, fisheries or fishing operations within inland fisheries waters, the body entitled to exercise authority over such fish, fisheries or fishing operations.

Management and control of aquaculture

1. Management and control over aquaculture is vested in—

a. the Federal Government, exercised by the Minister and the Commission, in respect of marine and coastal aquaculture;
b. State Government, exercised by the State Commissioner, in respect of the licensing of and control and enforcement in relation to inland aquaculture; and
c. the Federal Government, exercised by the Minister and the Commission, in cooperation with the ministers of other government ministries and State Commissioners, in respect of all other matters related to inland aquaculture.

2. Notwithstanding subsection (1)(b), the Federal Government shall also be responsible for national policy and matters concerning inland aquaculture likely to affect national policy or the national interest.

Authority of the Minister

1. The Minister shall have the requisite authority and responsibility in relation to this Act for fisheries conservation, management and development in Nigeria and in fisheries waters, and for the preparation and implementation of policy and further legislation necessary for the proper functioning and development of the fisheries sub-sector.
2. In accordance with the rights and duties specified in this Act, the Minister shall—
   a. have ministerial responsibility for the Commission;
   b. oversee the development of fisheries policy;
   c. within the limits of his authority under the Constitution, as expressed in this Act, adopt fisheries management plans and implementing regulations;
   d. adopt such legislation and take such other measures as are considered expedient to ensure, through effective management, the objectives of this Act.
3. In carrying out the activities described in subsection (2), and in carrying out any other activities in relation to the implementation of this Act, the Minister shall, as appropriate, and where applicable, take into account –
   a. the objectives of this Act in section 2;
   b. any relevant recommendations of the Council of the Commission; and
   c. any relevant recommendations of the National Fisheries Stakeholder Forum.
4. The Minister may enter into an agreement with any legal or natural person, any government or agency of any government, or any international organisation or agency for any purpose under this Act.
5. Nothing in this section shall be construed as allowing the delegation of any power to make regulations or any order for the purposes of this Act.

Information to members of the public

The Minister, the Commission and the Council, shall, where it is appropriate to do so, provide and disseminate information and guidance, in such form as is considered expedient, in connection with the implementation of this Act.

PART 3 Fisheries Commission

SECTION 1 - Establishment, Functions and Powers of the Commission

Establishment of the Fisheries Commission

1. There is established a body known as the Fisheries Commission (in this Act referred to as "the Commission").
2. The Commission shall—
   a. be responsible for regulating and managing the exploitation, conservation, management and sustainable

development of fisheries resources

b. exercise such competence as is accorded to it by or under this Act in relation to sea fisheries, inland fisheries and aquaculture;
c. be responsible for matters of enforcement of fisheries standards, regulations, rules, laws, policies and guidelines;
d. coordinate and implement policies in relation to fisheries, including coordination and liaison with relevant stakeholders within and outside Nigeria; and
e. develop and make recommendations to the Minister on fisheries policy; and
f. make recommendations to the Minister on the performance of any of his or her powers, duties or functions under this Act;

Functions of the Commission

1. The Commission, subject to the provisions of this Act, shall—
   a. take measures, implement actions and otherwise perform its duties so as to ensure the long-term conservation, management and sustainable utilisation of fisheries resources, in order to meet the needs of present and future generations;
   b. develop, apply and implement conservation, management and development practices based on sound management principles and generally recognised international standards and best practices, including—
      i. application of precautionary approaches to the conservation, management and development of fisheries and aquaculture;
      ii. application of ecosystem approaches to the conservation, management and development of fisheries and aquaculture
      iii. prevention and, where necessary, reduction of over-fishing, in particular to ensure that levels of fishing capacity and fishing effort do not exceed those commensurate with the sustainable utilisation of fisheries resources;
      iv. taking into account the particular rights, interests and needs of artisanal and subsistence fishers;
      v. adoption of integrated approaches to fisheries and other ocean and inland waters management, including by minimising, to the extent practicable, conflicts among fishers using the same maritime space or water body and between fishers and other users of the same maritime space or water body; and
      vi. implementation of good governance, accountability and transparency, including the need to involve fisheries stakeholders and fishing communities in all levels of decision-making;
   c. take measures, where necessary in cooperation with other public agencies, to implement and enforce compliance with the provisions of international agreements, protocols, conventions and treaties on fisheries and aquaculture;
   d. implement and enforce management and control measures through registration, licensing and permitting systems;
   e. implement and enforce measures to minimize or mitigate the adverse effects of fishing and aquaculture on the marine, coastal and inland aquatic environments and on non-target aquatic biological diversity and ecosystems;
   f. undertake, coordinate, utilize and promote the expansion of research, experiments, surveys and studies by public or private agencies, institutions and organizations concerning fish, fisheries and fishing operations;
   g. collect and share, in a timely manner and in accordance with generally recommended international standards and best practices, data concerning fisheries and aquaculture, as well as information from national and international research programmes;

h. promote sustainable trade in fish and fishery products, including through the application of generally recognised international standards and rules on post-harvest practices, trade and sanitary and phytosanitary systems and marketing;
i. in collaboration with other relevant agencies, and with the approval of the Minister, establish programmes for setting standards and regulations for the maintenance, restoration and enhancement of the nation's fisheries resources;
j. enforce compliance with laws, guidelines, policies, standards and other conservation and management measures, including by–
    i. adopting appropriate measures for monitoring, control and surveillance;
    ii. conducting offshore, onshore and field follow-up of compliance with regulations, licence conditions and set standards;
    iii. and take procedures prescribed by law against any violator;
    iv. conduct public investigations on overfishing and other activities or incidents harmful to fisheries resources or to the fisheries sector;
k. coordinate and liaise with stakeholders, within and outside Nigeria, on matters concerning fisheries and aquaculture;
l. create public awareness and provide education on sustainable fisheries management, promote private sector compliance with fisheries regulations;
m. take measures to avoid, minimise and resolve disputes between individuals in the fisheries sector;
n. submit for the approval of the Minister, proposals for the evolution and review of existing guidelines, regulations and standards on fisheries and aquaculture; and

2. carry out the functions and duties specified for it, or its officers, in this Act with respect to the Act's implementation and administration.
3. The Minister may give general directions in writing on matters of policy.
4. In carrying out the activities described in subsection (1), the Commission shall
    a. comply with any directions given by the Minister under subsection (3);
    b. take into account the objectives of national fisheries policy in section 2;
    c. as appropriate, and where applicable, take into account any relevant recommendations of the National Fisheries Stakeholder Forum.

General powers of the Commission

1. For the purpose of exercising its functions and duties under this Act, the Commission shall have power to—
    a. acquire and hold movable or immovable property and dispose of the property and to enter into a contract or any other transaction;
    b. purchase or take on lease any interest in land, building or property;
    c. build, equip and maintain the offices and premises for the performance of its functions under this Act;
    d. lease out any office or premises held by it, which is no longer required;
    e. open and operate ordinary and domiciliary accounts for the Commission in recognized banking institutions in Nigeria;
    f. borrow by overdraft or otherwise, with the approval of the Minister, such sums as it may require for the performance of its functions under this Act;
    g. accept gifts of land, money or other property, upon such terms and conditions, if any as may be specified by the person or organization making the gift, as long as such conditions are consistent with the functions of the Commission;
    h. charge fees for tests, investigations and other services performed by the Commission;

i. develop and promote such processes, methods, devices and materials as may be useful or incidental in carrying out the purposes and provisions of this Act;
j. enter into agreement and contracts with public or private organizations; and
k. do such other things as are necessary for the efficient performance of the functions of the Commission under this Act.

Legal status of the Commission

1. The Commission—
   a. shall be a body corporate with perpetual succession and a common seal; and
   b. may sue and be sued in its corporate name.

SECTION 2 – Governing Council

Council

1. There is established for the Commission a Governing Council (in this Act referred to as the "Council").
2. The functions of the Council shall include—
   a. responsibility for the appointment, promotion and discipline of the staff of the Commission;
   b. providing advice to the Commission with regard to financial, operational and administrative matters;
   c. overseeing the management of the Fisheries Development Fund;
   d. reviewing the functioning of Dispute Settlement Panels;
   e. establishing committees as may be expedient which shall be charged with specific functions;
   f. encouraging and promoting activities related to the functions of the Commission; and
   g. carrying out such other activities as may be required under this Act or directed by the Minister.

Membership of the Council

1. The membership of the Council shall consist of—
   a. the Director General, who shall act as the secretary to the Council;
   b. one representative each of–
      i. the Ministry responsible for matters relating to the management of fisheries resources;
      ii. the Ministry responsible for matters relating to the management of water resources;
      iii. the Ministry responsible for matters relating to the environment;
      iv. the Ministry responsible for matters relating to merchant shipping;
      v. the National Planning Commission;
      vi. the Nigerian Navy;
      vii. the Marine Police;
   c. two representatives of fisheries based research institutes, at least one of which must have expertise in inland fisheries (fresh water) and at least one of which must have expertise in sea fisheries;
   d. two representatives from State Government, one of which shall be a representative from a coastal State Government and one of which shall be a representative from an inland State Government;
   e. the President of Fisheries Society of Nigeria; and
   f. two other persons nominated by the President.
2. The representatives shall be nominated by the Ministry or other organisation to which the representative is affiliated, and in all cases shall be persons not below the rank of a Deputy Director in the Civil Service or equivalent senior position in other organisations.
3. The members of the Council shall elect one person, other than the Director General, to be chairperson.

Appointment of members of the Council

1. Members of the Council shall be appointed by the President, on the recommendation of the Minister and taking into account the nominations in section 13(2).
2. A member of the Council appointed, otherwise than ex officio and the Director General shall hold office for a term of four years and shall be eligible for reappointment for only one further term of four years.
3. The office of a member of the Council shall become vacant if—
   a. he resigns as a member of the Council by notice in writing under his hand addressed to the Minister; or
   b. the Minister, subject to the approval of the President, is satisfied that it is not in the interest of the Commission for the person appointed to continue in office and notifies the member in writing to that effect.
4. If it appears to the Council that a member of the Council, other than an ex officio member or the Director-General, shall be removed from office on the grounds of misconduct or inability to perform the functions of his office, the Council shall make a recommendation to the Minister.
5. If the Minister, after making such enquiries, as he considers necessary, approves the recommendation, the Minister shall, in writing, declare the office of such a member vacant.

Emoluments, allowances and benefits

The Chairman and members of the Council shall be paid such emoluments, allowances and benefits in accordance with the existing regulations on such payment.

Rules of procedure

1. The provisions of Schedule 1 to this Act shall have effect with respect to the proceedings of the Council and other matters mentioned therein.
2. Subject to subsection (1) and Schedule 1 to this Act, the Council shall determine its own rules of procedure.

National Fisheries Stakeholder Forum

1. The Council, for the purpose of this Act, shall establish a National Fisheries Stakeholder Forum (referred to in this Act as the "Forum"), in accordance with this section.
2. The functions of the Forum shall include—
   a. providing a forum for consultation between the Minister, the Commission, the Council and stakeholders from the fisheries sector;
   b. reviewing the implementation of this Act, including as appropriate through the development of a strategy or strategies for its implementation;
   c. reviewing proposals for new or amended policies, fisheries management plans, legislation or other conservation, management and development measures; and
   d. making recommendations to the Minister or to the Commission on current or proposed policies, fisheries management plans, legislation or other conservation, management and development measures.
3. The Council shall determine the specific functions and rules of procedure for the Forum, including, subject to section 18, the terms of appointment of members.
4. The Director General shall cause a record to be kept of any meetings or other proceedings of meetings of the Forum, and shall cause that record to be—
   a. submitted to the Minister, members of the Council and members of the Forum, as soon as possible after a meeting of the Forum; and
   b. within thirty days of the meeting of submission to the persons mentioned in sub-paragraph (b), made publicly available by any reasonable means.

Forum Membership

1. Appointments to the Forum shall seek to ensure a fair representation for the different components of the fisheries sub-sector, including artisanal fishing, semi-industrial fishing and industrial fishing, and including sea fisheries, inland fisheries and aquaculture.
2. The Forum shall ordinarily consist of the following regular members—
   a. the Director General,
   b. Technical Directors of the Commission;
   c. a representative from each of–
      i. the Marine Police;
      ii. the Nigerian Maritime Administration and Safety Agency;
      iii. the Nigerian Navy;
      iv. the Nigerian Oil Spill Detection and Response Agency;
      v. the Nigerian Ports Authority
      vi. the Nigerian Customs Administration;
      vii. National Water Resource Research Institute;
      viii. National Inland Water Ways Authority
   d. Six State fisheries Director, one from each of geopolitical zone of Nigeria;
   e. a representative of the Fisheries Society of Nigeria;
   f. two representatives of fisheries-based research institutes, one of which should have expertise in inland (fresh water) fisheries and one of which should have expertise in sea fisheries.
   g. a representative from the academic field with knowledge in matters relating to the fisheries sub-sector:
   h. at least four persons representing fish producer NGOs one of which shall be from industrial, artisanal and aquaculture, and one representing fish processing or marketing industry.
3. The Forum may invite from time to time, for an individual meeting or a series of meetings, any other person either—
   a. possessing the relevant experience, knowledge or expertise;
   b. having a professional interest; or
   c. representing another Ministry, Department or Agency of the Federal or State Government having an interest;

in any matter to be considered at any such meeting or series of meetings to become an occasional member of the Forum.

Disclosure of interest

1. A member of the Council or of any committee established by the Council who has a personal interest, directly or indirectly, in a matter being considered or dealt with by the Council or subsidiary body shall disclose verbally or in writing the nature of the interest at a meeting of the Council or subsidiary body and shall not take part in the deliberation or decision of the Council or subsidiary body with respect to that matter.
2. A member of the Forum who has an interest, directly or indirectly, in any matter that the Forum proposes to undertake shall disclose the nature of his or her interest to the Forum and shall be disqualified from participating in any deliberations of the Forum on that matter.
3. Without prejudice to any other action that is permitted by law, a person who contravenes subsections (1) or (2) may be removed from his or her position in the Council, subsidiary committee or Forum by the Minister in writing.

SECTION 3 – Dispute Settlement Panels

Dispute Settlement Panels

1. There may be established for the purpose of this Act, a Dispute Resolution Panel to be responsible for hearing and settling complaints from persons aggrieved in respect of matters arising from or related to the fishing sub-sector.
2. Any person who wishes to bring a matter before the Dispute Resolution Panel may do so by applying in writing or in person to the Director General or, on his or her behalf, to the State Government Director of Fisheries from the State in which the conflict or dispute arose.
3. Upon receiving an application in accordance with subsection (2), the Director General shall appoint the State Government Director of Fisheries described in that subsection to convene a meeting of all parties concerned in the dispute, within fourteen days of his or her appointment by the Director General, and to seek to obtain a resolution amongst them.
4. If, in the opinion of the State Government Director of Fisheries concerned or of any of the parties concerned in the dispute, the matter is not satisfactorily resolved under the procedure described in subsection (3), a Dispute Resolution Panel shall be formed to hear the dispute in accordance with the following subsections within 14 days of the end of the procedure in subsection (3).
5. The State Government Director of Fisheries shall be responsible for convening a meeting of the Dispute Resolution Panel and shall select members of the Panel in accordance with subsection (6).
6. A meeting of the Dispute Resolution Panel shall consist of three persons, being drawn from any of the following—
    a. the State Government Director of Fisheries concerned, or a person nominated by him or her from amongst his or her senior staff;
    b. a legally-qualified professional from amongst the staff in the Department or Ministry of the State Government Director of Fisheries concerned;
    c. a senior member of staff from the Federal Department of Fisheries Field Office, in the State concerned;
    d. a representative of the Fisheries Society of Nigeria in the State concerned;
    e. a representative of a non-governmental organisation relevant to the particular type of fishers or sector of the fishing industry present in the dispute; and
    f. a representative of a traditional institution relevant to the particular type of fishers or sector of the fishing industry present in the dispute.
7. The State Government Director of Fisheries concerned, or the person nominated by him or her from amongst his or her senior staff, shall act as Chair of the meeting of the Dispute Resolution Panel.
8. Decisions of the Dispute Resolution Panel shall be made by majority vote and, subject to subsection (10) shall be final.
9. The Dispute Resolution Panel may co-opt one or more specialists to assist it in the settlement of an issue before it.
10. The procedures in this section are without prejudice to a right of action to a Court.

SECTION 4 – Structure and Staff of the Commission

Directorates and offices of the Commission

1. The Commission shall have a—
    a. Directorate of Sea Fisheries;
    b. Directorate of Inland Fisheries;
    c. Directorate of Aquaculture;
    d. Directorate of Monitoring, Control and Surveillance;

e. Directorate of Research, Planning and Policy Analysis;
f. Directorate of Administration and Finance; and a
g. Directorate of Legal Services.

2. Each Directorate shall be headed by a Director.
3. The Director of the Directorate of Legal Services shall also function as the Legal Adviser to the Commission.
4. The Commission and its Directorates shall have adequate numbers of units and divisions as may be required in the discharge of the functions of the Commission.
5. The Commission shall have zonal offices in the six geopolitical zones of the country.
6. The Commission may create such other departments, units or offices in any part of Nigeria as may be required for the proper performance of the functions of the Commission.

Director General

1. There shall be a Director General of the Commission, appointed by the President in accordance with this section.
2. The Director General shall have the relevant requisite knowledge and experience in the fisheries sector to enable him or her effectively to discharge the duties under this Act specified for the Director General.
3. The Director General shall hold office for the period of four years, renewable for a further term of four years, on such terms and conditions as may be specified by the President upon his or her appointment.
4. In addition to any specific duties specified in this Act, the Director General shall—
   a. be responsible for ensuring the efficient and effective performance of the functions of the Commission and implementation of the directives of the Council;
   b. be responsible for the day-to-day management and administration of the Commission; and
   c. perform any other duties as may be determined by the Council.
5. The Director General shall report to the Minister whenever requested by the Minister or whenever the Director General considers it appropriate.
6. The Director General may, in writing, authorize any senior officer within his or her staff to exercise any or all of the powers and functions conferred on him or her by this Act, subject to such conditions, including jurisdictional restrictions, as he or she may stipulate in the authorization.

Appointment of staff

1. The Commission shall, from time to time, appoint such other persons as members of staff of the Commission as it may deem necessary, to assist the Commission in the performance of its functions under this Act.
2. The appointment of staff in the junior cadre, shall be made by the Director General while the appointment in the senior cadre, shall be made with the ratification and approval of the Council.
3. The members of staff of the Commission appointed under subsection (1) shall be appointed on such terms and conditions of service (including remuneration, allowances, benefits and pensions) as determined by the government.
4. The promotion of staff in the junior cadre shall be as recommended by a committee established by the Director General for this purpose, subject to the ratification and approval of the Director General.
5. The promotion of staff in the senior cadre shall be as recommended by a committee established by the Director General for this purpose, subject to the ratification and approval of the Council.

Pensions

1. The service in the Commission shall be approved service for the purposes of the Pension Reform Act and, accordingly, officers and other persons employed in the Commission shall be entitled to pensions,

and other retirement benefits as are prescribed thereunder.

2. Notwithstanding the provisions of subsection (1) of this section, the Commission may appoint a person to any office on terms, which preclude the grant of a pension or other retirement benefits in respect of that office.
3. For the purpose of the Pension Reform Act, any power exercisable thereunder by a Minister or other authority of the Government, other than the power to make regulations under this Act, is vested in and shall be exercised by the Commission and not by any other person or authority.

SECTION 4 – Financial Provisions

Management Fund

1. The Commission shall establish a Management Fund from which shall be defrayed all expenditure incurred by the Commission for the purposes of this Act other than that relating to the Fisheries Development Fund.
2. There shall be paid and credited to the Management Fund of the Commission—
   a. adequate take off grant from the Federal Government;
   b. annual subventions and budgetary allocations from the Federal Government;
   c. sums receives for fees for licences, permits and any other authorisation for fishing, aquaculture or related activities issued under this Act;
   d. loans and grants in aid from national, bilateral and multilateral agencies;
   e. counterpart funding as may be provided from time to time;
   f. all sums accruing to the Commission by way of rents, fees and other internally generated revenues from services rendered by the Commission; and
   g. all sums accruing to the Commission by way of gifts, endowments, bequeaths or other voluntary contributions by persons and organisations.

Expenditure of the Commission

1. The Commission shall, from time to time, apply the funds at its disposal to—
   a. the cost of establishing and maintaining the Head Office of the Commission at the Federal Capital Territory, Abuja and its offices located in other places in Nigeria;
   b. the cost of compliance monitoring and enforcement activities;
   c. pay allowances and other benefits of members of the Council and of its Committees;
   d. pay the salaries and entitlements of the Director-General and other members of staff of the Commission;
   e. pay the personnel, overhead, allowances, pensions, gratuities, benefit and other administrative costs of the Commission;
   f. pay for attendance at local and international conferences related to its functions;
   g. build capacity of members of staff of the Commission;
2. publicize and promote the activities of the Commission;
3. attend national and International scientific and professional seminars on matters related to fisheries and aquaculture;
4. develop and maintain any property vested in or owned by the Commission;
5. pay for services and contracts entered into by the Commission; and
6. undertake any other activity in connection with all or any of the functions of the Commission.

Exemption from income tax

1. All income derived by the Commission from the sources specified in section 0 of this Act shall be

exempted from income tax and all contributions to the Management Fund of the Commission shall be tax deductible.

Annual estimate

The Commission shall submit to the President through the Minister, not later than 30th September each year, its programme of work and estimates of its income and expenditure for the following year.

Accounts and audit

1. The Council shall keep proper accounts of the Commission and proper records in relation to those accounts.
    a. The accounts of the Commission shall be audited, not later than six months, after the end of the year to which it relates, by auditors appointed by the Commission from the list and in accordance with the guidelines supplied by the Auditor-General of the Federation.

Annual report

The Commission shall prepare and submit to the Federal Executive Council, through the Minister, not later than 30th June in each year, a report on the activities of the Commission during the immediate preceding year, and shall include in such report, a copy of the audited accounts of the Commission for that year and the auditor's report.

Investment

The Commission may, subject to the provisions of this Act and the conditions of any trust created in respect of any property, invest all or any of its funds in any security prescribed by the Trustee Investment Act or in such other securities as may, from time to time, be approved by the Minister.

SECTION 5 – Fisheries Development Fund

Establishment of the Fisheries Development Fund

There is established for the purposes of this Act a Fisheries Development Fund.

Sources of money for the Fund

1. The monies for the Fund shall consist of –
    i. damages, costs and compensation granted by the Courts to the Government in respect of an action under this Act or regulations under it;
    ii. sums of money received for compounded offences;
    iii. proceeds of the sale of forfeited items collected, imposed or received by or under this Act;
    iv. the amount of money that the Council may approve for payment into the Fund, from the Management Fund;
    v. the amount of money that Government may approve for payment into the Fund; and
    vi. loans and grants.
    vii. Monies held by the Commission on behalf of affected persons under section 0 shall not form part of the Fund.

Objective of the Fund

1. The monies of the Fund shall be applied –
    a. towards the promotion and development of fisheries in the country;
    b. for supporting the establishment and implementation of co-management agreements and fisheries

management plans;
c. to meet the liabilities of the Commission in respect of the monitoring, control and surveillance of the fishery waters, including the operation of VMS;
d. to provide assistance to artisanal fishers;
e. to promote research, studies and data programmes relating to the fisheries sector; and
f. toward any other purposes determined by the Council in consultation with the Minister.

Management of the Fund

1. Subject to subsection (2) and to section 23, the Director General shall have responsibility for the management of the Fund.
2. The Minister, with the consent of the Minister responsible for finance, shall make regulations to determine the rules and procedures for management of the fund.

Policies in relation to the Fund

1. The Council shall, in consultation with the Minister, and for the purpose of the management of the Fund, formulate policies–
   a. to generate money for the Fund; and
   b. to determine, allocations to be made from the Fund.

Exemption from income tax

All income derived by the Commission from the sources specified in section 33 of this Act shall be exempted from income tax and all contributions to the Fisheries Development Fund of the Commission shall be tax deductible.

PART 4 Sea Fisheries

SECTION 1 - Conservation, Management and Development

Fisheries management plans

1. The Minister, where appropriate, shall prepare, adopt and keep under review plans for the management and development of fisheries (in this Part, "fisheries management plans").
2. Following the adoption of a fisheries management plan by the Minister under subsection (1), the Minister shall give appropriate publicity to the plan and, as a minimum requirement for such publicity, shall publish a notice to that effect in the Gazette.
3. A fisheries management plan shall—
   a. identify the fishery or fisheries to be subject to the plan and indicate their present state of exploitation;
   b. identify the zone or area to which the plan shall apply;
   c. specify the objectives to be achieved in the management and development of each fishery;
   d. specify the conservation, management and development measures to be taken for each fishery;
   e. indicate the main requirements for statistical information on fisheries and the means to be used to obtain the information; and
   f. provide for any other matters as may be necessary for the proper management and development of each fishery.
4. In the preparation and review of each plan, the Commission shall consult, as appropriate, with—
   a. other relevant ministries and agencies of the Federal Government;
   b. officials responsible for fisheries in any State Government affected by the plan;
   c. relevant research institutes and universities;

d. stakeholders affected by or with an interest in the plan; and
e. fisheries management bodies of other countries in the region or sub-region, where expedient through regional or sub-regional fisheries management organisations, with a view to harmonisation of fisheries management plans, in particular with respect to shared fish stocks.

Co-management

Provision of co-management at coastal fisheries e.g. within the no-trawl zone, includes a variety of partnership arrangements and degrees of power sharing between government (at Federal, States, Local Governments and/or village level) and local community groups (resource users, community representatives and other stakeholders).

Determination of total allowable catch or effort

With respect to any particular fish stock or single or multiple species fishery, the Minister, on taking appropriate scientific advice, may determine the total allowable catch or total allowable level of fishing effort, however determined, subject to the provisions of this Act.

Determination of participatory rights

1. The Minister may determine participatory rights in a fishery, including determination of allocations of total allowable catch, by quota or otherwise, or the total allowable level of fishing effort, where appropriate.
   a. The allocations referred to under subsection (1)—
   b. shall be based on the best available scientific information and, if applicable, consistent with a relevant fisheries management plan;
   c. may include, where appropriate, preferential rights for artisanal fishers; and
2. may include requirements as to vessel type, gear type, seasons of operation, areas of operation, quantities of by-catch or any other requirement, condition or restriction that the Minister considers is required for the conservation, management and development of the fishery.
3. The Minister shall designate a fishery, which shall be subject to allocations of participatory rights in accordance with this section and shall give appropriate publicity to such designation.

Designation of fishing zones

1. The Minister, by means of regulations adopted under this Act, may designate zones within fisheries waters reserved for or in order to protect—
   a. artisanal fishing or fishers; or
   b. specified fisheries resources or fisheries,
   c. and may establish the rules and conditions in relation to such zones concerning access, transit and the conduct of fishing operations.
2. If, in the opinion of the Minister, it is necessary in order to ensure compliance with and rules and conditions established pursuant to subsection (1), or otherwise in order to protect the fishers, fisheries or fisheries resources which a zone established pursuant to subsection (1) is designed to protect, the Minister, after having consulted, as appropriate, the persons listed in section 00, may by means of a notice published in the Gazette establish a buffer zone of up to two nautical miles around the designated zone in which some or all of the rules and conditions in the buffer zone, or as appropriate alternative rules and conditions, shall apply.
3. The notice under subsection (2) shall specify the rules or conditions that apply in the buffer zone.

Closed seasons and closed areas

1. The Minister may by notice in the Gazette declare a closed season or a closed area.

2. Subject to subsection (3), a declaration made under subsection (1) shall—
   a. be made only after consultation with the Forum; and
   b. be given reasonable publicity and, where possible, shall be given in advance of the commencement of the closed season or closed area.
3. If, in the opinion of the Minister, there is a need to establish a closed season or closed area on an urgent basis and, as a result, there is insufficient time for consultation with the Forum, the Minister—
   a. may disregard the requirement in subsection a);
   b. shall consult the Forum as soon as is practicable after the commencement of the closed season or closed area; and
   c. in light of the consultation, shall consider whether any amendments should be made to the closed season or closed area.
4. When declaring a closed season, the Minister shall specify—
   a. the period to which the closed season applies; and
   b. the type of fish, fishery, fishing method or other parameters, as the case may be, to which the closed season applies.
5. When declaring a closed area, the Minister shall specify—
   a. the area or zone to which the closed area applies;
   b. whether the closed area is of indefinite or limited duration, and in the latter case shall specify the period during which the closed area applies; and
   c. the type of fish, fishery, fishing method or other parameters, as the case may be, to which the closed season applies.
6. A person who engages in fishing in contravention of a closed season or closed area declared under this section commits an offence and is liable on summary conviction to a fine under scale 2.

Marine reserves

1. Subject to subsection (4), the Minister may by means of notice in the Gazette designate an area of the fisheries waters and, as appropriate, the seabed underlying the waters in that area as a marine reserve.
2. A person who, except with the written permission of the Minister, within a marine reserve—
   a. engages in fishing;
   b. dredges, or takes sand or gravel; or
   c. otherwise disturbs the natural habitat,
   d. commits an offence and is liable on summary conviction to a fine under scale 2.
3. Subject to subsection (4), the Minister may by means of notice in the Gazette remove a designation made under subsection (1).
4. Prior to making a designation under subsection (1) or removing a designation under subsection (3), the Minister shall consult with—
   a. the Minister responsible for the Environment;
   b. other ministries and agencies of the Federal Government, as the Minister considers necessary;
   c. any relevant ministries and agencies of any State Government adjacent to the area to be declared a marine reserve;
   d. the National Fisheries Stakeholder Forum; and
   e. relevant research institutes.

Prohibited fishing methods and practices

1. No person shall—
   a. permit to be used, use or attempt to use an explosive, firearm, poison or any other noxious substance for the purpose of killing, stunning, disabling or catching fish, or for any related purpose; or

b. carry on board or possess or control without lawful authority an explosive, firearm, poison or any other noxious substance in circumstances indicating an intention of using that substance for any of the purposes referred to in subsection (1)(a).

2. An explosive, firearm, poison or any other noxious substance found on board a fishing vessel shall be presumed, unless the contrary is proved, to be intended for the purposes referred to in subsection (1)(a).
3. No person shall—
   a. remove shark fins on board vessels, or retain on board, tranship or land shark fins, or
   b. purchase, offer for sale or sell shark fins which have been removed on board, retained on board, transhipped or landed in contravention of subsection (3)(a).
4. A shark fin found on board a fishing vessel shall be presumed, unless the contrary is proved, to have been removed in contravention of subsection (3)(a).
   a. No person shall, in fisheries waters or on a Nigerian fishing vessel, wherever it may be, use pair trawls or large-scale driftnets.
   b. The Minister, using his or her power to make regulations under section 0, may prohibit any other fishing method or practice which is recognized to be harmful, inhumane or otherwise incompatible with the sustainable conservation, management and development of fisheries.
5. A person who lands, sells, receives or possesses fish taken by a means which contravenes a provision in this section and who knows or has reasonable cause to believe that the fish has been so taken, commits an offence and is liable on summary conviction to a fine under scale 2.

Capture of marine mammals and sea turtles

1. Subject to subsection (4), no person shall fish for marine mammals or sea turtles in the fisheries waters.
2. Unless permitted to do otherwise in accordance with an authorization pursuant to subsection (4), the master of a fishing vessel that catches a marine mammal or a sea turtle accidentally which is still alive shall cause it to be released immediately and returned to the waters from which it was taken with the least possible injury.
3. Unless permitted to do otherwise in accordance with an authorization pursuant to subsection (4), the master of a fishing vessel that catches a marine mammal or a sea turtle accidentally which is dead, shall—
   a. report the death to an authorized officer;
   b. land the marine mammal or sea turtle; and
   c. hand the marine mammal or sea turtle to an authorized officer, who shall dispose of it appropriately.
4. The Director General may, on the basis of proven scientific evidence, and subject to compliance with any relevant international agreements to which Nigeria is a party, give a written authorization to fish for marine mammals or sea turtles, in particular for research purposes.
5. A person who contravenes a provision in this section commits an offence and is liable on summary conviction to a fine under scale 2.

Prohibition of removal of fish from nets, traps, etc.

1. No person shall, within sea fisheries waters, remove fish from a net, trap, marine pond enclosure, storage device or other item of fishing gear, unless he or she is the owner or is acting with the authority of the owner of the fishing gear concerned.
2. No person shall destroy, damage or knowingly or intentionally impair the functioning of any net, trap, marine pond enclosure, storage device or other item of fishing gear that belongs to another person.
3. A person who contravenes subsection (1) or (2) commits an offence and in addition to any penalty which may become due under this Act shall be ordered by the Court to compensate the owner for the full amount of any such knowing or intentional impairment and lost fishing opportunity.

Protection of fish aggregating devices, etc.

1. No person shall destroy, damage, interfere with or take any part of a fish aggregating device, artificial reef, mooring buoy, float, tray or other such device which belongs to another person or has been installed by the Government or a local authority.
2. Any person who contravenes subsection (1) commits an offence and in addition to any penalty which may become due under Part VI of this Act may be ordered to pay full compensation for the destruction, damage or theft of a fish aggregating device, artificial reef, mooring buoy, float, tray or other device or any part thereof.

SECTION 2 – Registration and Licensing

Registration of fishing vessels

1. Subject to subsection (2), no fishing vessel shall be used for fishing or related activities in the fisheries waters unless it has been duly registered in accordance with the Merchant Shipping Act 2007.
2. Subsection (1) shall not apply to a self-propelled fishing vessel that is less than 15 gross tons.
3. The Minister and any authorized officer shall be entitled to require delivery of any certificate of registration issued to a fishing vessel from any person who has in his or her possession or under his or her control, such certificate of registration.
4. Failure to comply with a requirement under this section is an offence under the Merchant Shipping Act 2007, and not under this Act.

Prohibition on fishing without a licence

1. Subject to subsection (2), no person shall operate or navigate a fishing vessel for the purpose of fishing in the fisheries waters unless—
   a. he or she applies for and obtains a fishing licence; and
   b. at the time of any fishing operation, the licence in respect of that fishing operation is valid and has not expired.
2. The requirement for a licence under subsection (1) shall apply to—
   a. industrial fishing vessels, whether for fishing in the fisheries waters or on the high seas;
   b. any foreign fishing vessel, for fishing in the fisheries waters; and
   c. any other fishing vessel, class of fishing vessel or vessel within a particular fishery that the Minister may prescribe in regulations under this Act.
3. Any person who contravenes subsection (1) commits an offence and is liable on summary conviction to a fine under scale 2.

Application for a licence

1. Any person being the owner, operator or charterer of a fishing vessel requiring a licence may apply to the Commission for a licence in respect of a fishing vessel to—
   a. conduct fishing operations in the fisheries waters;
   b. conduct fishing operations on the high seas;
   c. navigate for the purpose of discharging imported frozen fish in any Nigerian port; or
   d. navigate the fisheries waters or foreign waters for the purpose of processing or discharging fish caught from such waters in any Nigerian port.
2. Subject to the requirements in this subsection, an application for a licence and shall—
   a. be in English;
   b. contain the particulars and descriptions of the fishing vessel in respect of which the application is made;

c. contain a statement in detail as to–
   i. the methods to be employed for fishing;
   ii. the area within which it is proposed that the fishing vessel shall operate;
   iii. the arrangements that are to be made for the transportation, preservation and marketing of fishery products;
   iv. any matters specified for the purposes of this section under regulations concerning a vessel monitoring system; and
   v. such other particulars that the Minister considers necessary; and
d. be in such other form and manner as the Minister may, by notice published in the Gazette, require.

Licence fees

The Commission may prescribe fees for fishing licences in any form and at any rate it sees fit.

Grounds for issue of a licence

1. On being satisfied that—
   a. an application for a licence has been made in the prescribed manner and contains all the information required under section 0 of this Act;
   b. the prescribed fees have been paid;
   c. the applicant is the lawful owner, operator or charterer of the fishing vessel in respect of which the application is made, and that he or she is a fit and proper person to be granted a licence; and
   d. the operation of the fishing vessel in the fisheries waters of Nigeria is not likely to be prejudicial to the interests of the fisheries industry in Nigeria, taking into account in particular the matters referred to in section 0 and any fisheries management plan that may apply to the fisheries concerned in the licence application,
   e. the Director General shall, subject to section 0, issue a licence in respect of the fishing vessel.
2. Subject to the provisions of this Act, a licence shall be in the prescribed form and may be issued subject to such conditions as the Director General may think fit to impose, and any conditions so imposed shall be endorsed on the licence.
3. A licence shall be yearly, quarterly or specific, and—
   a. if the licence is a yearly licence, it shall commence on the date it becomes valid and shall expire on 31st December in the year in which it becomes valid;
   b. if the licence is a quarterly licence, it shall commence on the date it becomes valid and shall expire on 31st March, 30th June, 30th September or 31st December, whichever day falls next after the date on which it becomes valid; and
   c. if it is specific, the Director General shall indicate the date the licence becomes valid and the date the licence ceases to be valid.

Transferability of licences

1. Except in the circumstances described in subsection (2), a licence issued in accordance with this Act is not transferable.
2. Where the ownership of a fishing vessel in respect of which a licence has been issued is transferred from one person to another person, the licence shall not be valid in respect of the new owner of the vessel until such time as the Director General has approved the transfer of the ownership of the fishing vessel and has endorsed the licence to that effect.

Renewal of a licence

The provisions of this Act relating to application for a licence and the issuance of a licence shall apply in relation to an application for the renewal of the licence and to the issuing of a renewed licence.

Refusal, suspension, modification and cancellation of licences

1. The Director General may refuse to issue or renew a fishing licence, or may suspend or cancel a fishing licence where he or she is satisfied that—
   a. information required to be given or reported under this Act or under Regulations is false, incomplete, incorrect or misleading;
   b. it is necessary to do so in order to give effect to a licensing program specified in an approved fisheries management plan;
   c. the owner, operator or charterer of the vessel is the subject of proceedings under the bankruptcy laws of a jurisdiction or on reasonable grounds appears unable to meet the financial obligations that could arise from fishing activities, and has not provided financial assurances required by the Director;
   d. the vessel in respect of which the licence was issued has been used in contravention of this Act or in breach of a regulation or direction made or given under this Act or a condition of the licence or, in the case of a foreign fishing vessel, in breach of an applicable access arrangement;
   e. the fishing vessel does not meet the safety standards required under an enactment for the purpose for the time being in force;
   f. the fishing vessel is manned by a crew that is not qualified under an existing enactment for the purpose;
   g. the owner, operator or master of the fishing vessel engages in an activity prejudicial to the fishing industry; or
   h. the applicant or operator of the vessel for which a licence is sought has a documented history of non-compliance with national, foreign, regional or global fisheries laws or regulations and is believed unlikely to comply with those laws, or regulations if a licence is issued.
2. The Director General may impose additional conditions or modify the terms of a fishing licence after giving notice as provided in subsection (3) to the licensee.
3. Where a licence is suspended or cancelled, notification of the cancellation or suspension shall be given to the person to whom the licence was issued within a period of at least seven days before the effective date of the suspension or cancellation.
4. A notification given under subsection (3) shall be in writing, but in the case of a foreign fishing vessel, the notification may be in writing or by email, telex, facsimile or any other form the Director General considers appropriate.
5. Subject to subsection (6), no reimbursement of licence fees will be due to a licensee following suspension, cancellation or modification of a licence.
6. In appropriate cases, where a fishing licence is suspended or cancelled on the grounds specified in subsection (1)b), a proportion of the fees paid for the fishing licence representing the unexpired period of that licence or the period of suspension, shall be reimbursed to the licensee at the request of the licensee.

Authorisations for marine scientific research and experimental fishing

1. The Director General may authorise marine scientific research or experimental fishing operations in the fisheries waters on completion of procedures required under this section.
2. In giving an authorisation under subsection (1), the Director General may require the holder of the authorisation—
   a. to work with one or more relevant scientific partners appointed by the Director General;
   b. to provide reports on the results of any research and all data generated, to the Government or other

bodies nominated by the Director General; and

c. to comply with other conditions, as may be determined by the Director General.

3. An authorisation granted under this section shall be in writing and be in the form determined by the Commission.
4. A person authorised in accordance with this section shall comply with any applicable laws and the conditions of the authorisation.
5. The Director General may refuse to issue, suspend or cancel the authorisation in accordance with this Act if there is a failure to comply with the requirements of this Act or the conditions of the authorisation.
6. A person who undertakes marine scientific research or experimental fishing operations without authorisation commits an offence and is liable on summary conviction to a fine under scale 2.

Appeals

1. Any person aggrieved by any decision of the Director General under this Part of this Act may, within fourteen days of receiving notice of that decision, appeal to the Minister in respect of that decision.
2. The Minster shall, without unreasonable delay, consider any appeal made under sub-section (1) and shall take such decision thereon as he or she deems fit.
3. The decision of the Minister on any appeal under this section shall be final.

SECTION 3 – Foreign Fishing

Fishing by foreign fishing vessels

1. A foreign fishing vessel shall not fish or attempt to fish within the fisheries waters except—
   a. under a licence issued under this Act; or
   b. as may be otherwise authorised under an agreement between the Government and the government of the country in which the fishing vessel is registered or otherwise belongs.
2. Subject to subsection (3), a foreign fishing vessel shall not enter the fisheries waters unless authorised to do so by the terms of a licence or permit issued to it under this Act or under an applicable access agreement in force.
3. Subsection (2) does not apply to a foreign fishing vessel entering the fisheries waters for the sole purpose of innocent passage, or by reason of force majeure or distress or for the purpose of rendering assistance to persons, ships or aircraft in danger or distress or for any other purpose recognised by international law.
4. A foreign fishing vessel entering the fisheries waters for any of the reasons specified in subsection (3) shall—
   a. observe all applicable laws of Nigeria;
   b. not fish, attempt to fish, load, unload or tranship a fish; and
   c. exit the fisheries waters as soon as the purpose for which it entered has been fulfilled or has ceased to be valid.
5. The provisions on licensing in Part IV of this Act apply to foreign fishing vessels.
6. Where a foreign fishing vessel is used in contravention of subsection (1), (2) or (4), the owner, master and charterer of the vessel individually commits an offence and is liable on summary conviction to a fine under scale 2.

Unlicensed motor fishing vessel enjoying innocent passage

1. Every unlicensed motor fishing vessel in transit or enjoying innocent passage within the fisheries waters shall have its—
   a. gear stowed wholly inboard;

b. nets and trawl boards disconnected from towing warps or hauling ropes; and
c. fishing gear above deck and firmly secured.

2. For the purpose of this section, "unlicensed motor fishing vessel" shall include a foreign fishing vessel without a licence for fishing in the fisheries waters or with such a licence but navigating in an area or at a time to which the licence does not apply.

Activities of crew and other persons on board a foreign fishing vessel

1. A person, who is on board a foreign fishing vessel or who is a member of the crew of or attached to or employed on a foreign fishing vessel, shall not in the territory of Nigeria or in the fisheries waters engage in fishing or related activities except in accordance with this Act and any other applicable laws.
2. Fishing gear on board a foreign fishing vessel in a place in the fishing waters where it is not permitted to fish shall be stowed in the prescribed manner or in a manner that it is not readily available for use for fishing.
3. A foreign fishing vessel in a place in the fisheries waters shall be operated in a way that the activities of artisanal fishermen and fishing vessels are not disrupted or in any other way adversely affected.
4. Where a foreign fishing vessel is used in contravention of subsection (1) or (2), the owner, master and charterer of that vessel individually commits an offence, and is liable on summary conviction to a fine under scale 2.

Access arrangements

1. The Minister may, after consulting the Forum, enter into an international access arrangement on behalf of the Government with a foreign government, foreign association or any other legally constituted foreign body which has power and authority to enter into an agreement and, in the view of the Minster, is able to enforce compliance with the terms of the access arrangement.
2. An access arrangement shall—
   a. provide for the allowable allocation of fish which shall not exceed a level consistent with the conservation and management of fisheries resources;
   b. provide for the protection of artisanal fishermen; and
   c. shall also be consistent with any applicable fisheries management plan.
3. An access arrangement shall include the provisions required to implement minimum terms and conditions of fisheries access in accordance with this Act, including—
   a. establishing the responsibility of the foreign flag State to take measures to ensure compliance by its vessels with the terms and conditions of the access arrangement and with the applicable laws, including those relating to fishing and related activities in the fisheries waters;
   b. the issuance of licences and payment of fees for fishing related activities or any other activities or operations described in this Act;
   c. provisions that the owner, charterer, operator, master or any other person responsible for the operation of a licensed vessel shall not tranship fish at sea except only at designated times and places and in accordance with this Act; and
   d. any other matters as may be required for effective implementation of the access arrangement in accordance with this Act.

PART 5 Inland Fisheries

SECTION 1 – Conservation, Management and Development

Fisheries management plans

1. The relevant inland fishing authority, where appropriate, shall prepare, adopt and keep under review plans for the management and development of fisheries (in this Part, "fisheries management plans").
2. Each fisheries management plan shall—
   a. identify the fishery;
   b. specify objectives to be achieved in the management and development of the fishery or area;
   c. describe any enhancement strategies to be included as part of the management of the fishery or area;
   d. describe the status of the fishery, taking into account any available scientific evidence and advice;
   e. specify management measures to be applied to the fishery and the appropriate fines, penalties and sanctions for contravention of such measures;
   f. specify the process for the allocation of any fishing rights provided for in the fisheries management plan;
   g. protect the fishing interests of artisanal, subsistence and small-scale fishers;
   h. include an assessment of risk;
   i. identify requirements for monitoring, reporting, and assessment; and
   j. make provision in relation to any other matter necessary for sustainable use of fisheries resources.
3. When preparing a fisheries management plan under this section, and before it is adopted and published under subsection (4), the relevant inland fishing authority shall—
   a. obtain, to the extent it is available, appropriate scientific advice;
   b. obtain and consider the opinion of the Council on the proposed plan;
   c. consult with the Forum on the proposed plan;
   d. consult with the stakeholders affected by or with an interest in the plan, to the extent such members are not members of the Forum;
   e. consult with other relevant ministries and agencies of Federal or State Government on the proposed plan; and
   f. take into account of the Objectives and General Principles of this Act.
4. The relevant inland fishing authority being satisfied that the criteria in subsection (2) have been met and subject to subsection (3), shall adopt the fisheries management plan and cause them to be publish by means of—
   a. Regulations made by the Minister under this section (where the relevant inland fishing authority is the Commission); or
   b. by State edict (where the relevant inland fishing authority is a State Commissioner).
5. A fisheries management plan has no effect to the extent it is inconsistent with the provisions of this Act or any Regulations made under it.

Review, amendment and revocation of fisheries management plans

1. The relevant inland fishing authority shall keep a fisheries management plan it has adopted under review and shall undertake a detailed review at least once every five years.
2. The relevant inland fishing authority may after such consultation as he or she considers appropriate in the circumstances, amend or revoke a fisheries management plan.

Co-management

1. The relevant inland fishing authority may delegate management responsibility in whole or in part for

any fishery or area under its jurisdiction to a locally registered non-governmental organization, fishing cooperative or public of private association, including any traditional community associations (in this section "co-management body") that meets or complies with the conditions in subsection (2).

2. The conditions referred to in subsection (1) are that the co-management body—
   a. is willing, and has the capacity to co-manage any fishery or area;
   b. agrees to implement the management plan that exists for the fishery or area;
   c. under the guidance of the relevant inland fishing authority, agrees to prepare in accordance with section 0, or periodically update the management plan for the respective fishery or area based on consultations with persons with an interest in the co-management arrangement;
   d. agrees to comply with any other requirements of the relevant inland fishing authority consistent with the purposes for which the fishery or area was declared as subject to co-management.
3. Where the relevant inland fishing authority has delegated management responsibility under subsection (1), it shall cause the preparation of a legally binding agreement ("co-management agreement") that details the duration, terms and conditions for the co-management of the fishery or area between the relevant inland fishing authority and the co-management body.
4. A co-management agreement has no effect to the extent it is inconsistent with the provisions of this Act, any Regulations made under it or any conditions of any license applicable to the activities to which the co-management agreement applies.

Closed seasons and closed areas

1. Without prejudice to any provision that may be made in relation to closed seasons or closed areas in any inland fisheries management plan, the relevant inland fishing authority may,
   a. with respect to any particular fishery for which it exercises competence, and
   b. by notice in the Gazette,
   c. declare a closed season or a closed area.
2. Where the declaration of a closed season or closed area would affect fish, fisheries or fishing operations which fall under the jurisdiction of more than one inland fishing authority, the declaration under subsection (1) shall be made jointly be each inland fishing authority concerned.
3. Subject to subsection (4), a declaration made under subsections (1) or (2) shall—
   a. be made only after consultation with any persons that are likely to be affected by the closed season or closed area; and
   b. be given reasonable publicity, in particular within the locality or localities affected by the closed season or closed area; and
   c. where possible, such publicity shall be given in advance of the commencement of the closed season or closed area.
4. If, in the opinion of the relevant inland fishing authority, as the case may be, there is a need to establish a closed season or closed area on an urgent basis and, as a result, there is insufficient time for consultation or the provision of reasonable publicity in advance of the commencement of the closed season or closed area—
   a. the consultation requirements in subsections a) or (3)(a) and (b), as the case may be, may be disregarded prior to the establishment of the closed season or closed area;
   b. as soon as is practicable after the commencement of the closed season or closed area, the persons that would have otherwise have been consulted, shall be consulted; and
   c. in light of the consultation, the relevant inland fishing authority shall consider whether any amendments should be made to the closed season or closed area.
5. When declaring a closed season, the relevant inland fishing authority shall specify—
   a. the period to which the closed season applies; and

b. the type of fish, fishery, fishing method or other parameters, as the case may be, to which the closed season applies.

6. When declaring a closed area, the relevant inland fishing authority shall specify—
   a. the area or zone to which the closed area applies;
   b. whether the closed area is of indefinite or limited duration, and in the latter case shall specify the period during which the closed area applies; and
   c. the type of fish, fishery, fishing method or other parameters, as the case may be, to which the closed season applies.
   d. A person who engages in fishing in contravention of a closed season or closed area declared under this section commits an offence and is liable on summary conviction to a fine under scale 2.

Prohibited fishing methods and practices

1. No person shall—
   a. permit to be used, use or attempt to use electricity, an explosive, firearm, poison or any other noxious substance for the purpose of killing, stunning, disabling or catching fish, or for any related purpose; or
   b. carry on board or possess or control without lawful authority [devices which enable the use of electricity in water], an explosive, firearm, poison or any other noxious substance in circumstances indicating an intention of using that substance for any of the purposes referred to in subsection (1)(a).
2. An explosive, firearm, poison or any other noxious substance found on board a fishing vessel shall be presumed, unless the contrary is proved, to be intended for the purposes referred to in subsection (1)(a).
3. The Minister, using his or her power to make regulations under section 0, may prohibit any other fishing method or practice which is recognized to be harmful, inhumane or otherwise incompatible with the sustainable conservation, management and development of inland fisheries.
4. A person who lands, sells, receives or possesses fish taken by a means which contravenes a provision in this section and who knows or has reasonable cause to believe that the fish has been so taken, commits an offence and is liable on summary conviction to a fine under scale 2.

Prohibition of removal of fish from nets, traps, etc.

1. No person shall, within fisheries waters, remove fish from a net, trap, cages, pen and pond enclosure, storage device or other item of fishing gear, unless he or she is the owner or is acting with the authority of the owner of the fishing gear concerned.
2. No person shall destroy, damage or knowingly or intentionally impair the functioning of any net, trap, pond enclosure, storage device or other item of fishing gear that belongs to another person.
3. A person who contravenes subsection (1) or (2) commits an offence and in addition to any penalty which may become due under Part VII of this Act shall be ordered by the Court to compensate the owner for the full amount of any such knowing or intentional impairment and lost fishing opportunity.

Maintenance of access to inland fisheries waters and landing sites

1. The relevant inland fishing authority shall have responsibility for maintaining reasonable access to fishing sites and to maintaining landing sites for inland fishers.
2. For the purpose of subsection (1), the inland fishing authority shall cooperate, as appropriate, with other authorities, landowners and other stakeholders and interested persons.

Construction of dams, weirs, barriers, etc.

1. The appropriate authority shall regulate and control the building of dams, weirs or other fixed barriers or obstructions to ensure a free movement of fish, and where permission is granted to a person to build a dam, weir or other fixed barrier or obstruction, fish ladders shall be built to ensure free movement of fish.

2. Where a project relating to the building of dams, weirs or other fixed barriers or obstructions in inland fisheries waters requires an environmental impact assessment under the Environmental Impact Assessment Act (No. 86 of 1992), the proponent of the project shall, without prejudice to that Act, inform the Commission of the proposed project prior to the environmental impact assessment being carried out.
3. A person who builds a dam, weir or other fixed barrier or obstruction in a manner that—
   a. contravenes subsection (1) or (2) commits an offence and is liable on conviction to a fine under scale 2; and
   b. in addition, following a contravention of subsection (1), and, without prejudice to any civil remedies that may exist for loss or damage suffered to any person, the dam, weir or other fixed barrier or obstruction, if any, shall be destroyed.
4. In this section—
   a. "appropriate authority" means the body charged with the responsibility for matters relating to the construction of dams and other fixed barriers; and
   b. "environmental impact assessment", "project" and "proponent" shall have the means assigned in the Environmental Impact Assessment Act (No. 86 of 1992).

Restriction on use of fishing gear, etc.

1. No person shall fish with a gear constructed with net webbing of less than 76 millimetres except where the gear consists of—
   a. pelagic trawl nets used for freshwater sardines (clupeids) which are used with outboard engines of not more than 25 horsepower capable of operating trawl net with three millimetres cod-end; or
   b. lift nets used for freshwater sardines constructed with three to five millimetres stretched mesh webbing.
2. No single fishing unit shall operate with a single net or a combination of nets exceeding 500 metres of three millimetres mesh size and above.
3. A person who contravenes a provision of subsection (1) or (2) of this section
   a. commits an offence and is liable on conviction to a fine under scale 1 and, in addition, the net and catch shall be forfeited to the government of the State in which the offence was committed.
   b. [relevant inland fishing authority may make additional regulations]

Identification mark on fishing craft

1. The owner or operator of a fishing vessel shall exhibit the registration number of the vessel on both sides of the craft in bold letters with a prefix reflecting the State of registration.
2. A person who fails to exhibit a registration number on his craft as required under subsection (1) of this section commits an offence and is liable on conviction to a fine under scale 1.

Declaration of catch, etc.

1. The operator of a craft in respect of which a licence has been issued under this Act shall—
   a. declare his catch to a nominated government agent when required to do so by
   b. the government agent;
   c. permit a Commissioner or a person authorised by him or a government agent
   d. to inspect the catch either before or after it has been landed; and
   e. give the Commissioner, person or government agent, as the case may be, all
   f. reasonable facilities in respect of the inspection of the catch.
2. A person who contravenes a provision of subsection (1) of this section is guilty of an offence and is liable on conviction to a fine under scale 1.

SECTION 2 - Licensing

Requirement for a fisherfolk licence

1. No person shall operate or navigate a fishing vessel for the purpose of fishing in inland fisheries waters unless—
   a. he or she applies for and obtains a fishing licence; and
   b. at the time of any fishing operation, the licence in respect of that fishing operation is valid and has not expired.
2. Subsection (1) applies to—
   a. any fishing which uses a motorised fishing craft; and
   b. any other type or category of fishing vessel or fishing, as may be determined by the relevant inland fishing authority.
3. Any person who contravenes subsection (1) commits an offence and is liable on summary conviction to a fine under scale 2.

Application for a licence

1. An application for a licence shall be made to the Commissioner in the State where the applicant resides or intends to fish.
2. Where the fishing vessel is to be operated in a body of water shared by two or more States, the owner or operator of the fishing vessel shall not be required to obtain more than one licence in a particular year.
3. An application for a licence and shall –
   a. be in English;
   b. contain the particulars and descriptions of the fishing vessel in respect of which the application is made;
4. Contain a statement [and any other evidence that might be required] in detail as to –
   a. the methods to be employed for fishing;
   b. the area within which it is proposed that the fishing vessel shall operate;
   c. such other particulars that the Commissioner considers necessary; and
   d. be in such other form and manner as the Commissioner may, by public notice, require.

Licence fees

The Commissioner may prescribe fees for fishing licences in any form and at any rate within the range of N 2,000 to N 10,000 per annum, or an amount based on a percentage of the market value of catch per annum provided that in no case the licence exceeds N 10,000 per annum.

Issue and validity of a licence

1. On being satisfied that –
   a. an application for a licence has been made in the prescribed manner and contains all the information required under section 0 of this Act;
   b. the prescribed fees have been paid;
   c. the applicant is the lawful owner, operator or charterer of the fishing vessel in respect of which the application is made, and that he or she is a fit and proper person to be granted a licence; and
   d. the operation of the fishing vessel in the inland fisheries waters of Nigeria is not likely to be prejudicial to the interests of the fisheries industry in Nigeria, taking into account in particular the matters referred to in section 0 and any fisheries management plan that may apply to the fisheries concerned in the licence application,
   e. the Commissioner shall, subject to section 0, issue a licence in respect of the fishing vessel.

2. Subject to the provisions of this Act, a licence shall be in the prescribed form and may be issued subject to such conditions as the Commissioner may think fit to impose, and any conditions so imposed shall be endorsed on the licence.
3. A licence issued under this Act shall be valid for one year and expire on 31 December every year.
4. The holder of a licence under this Act shall, not later than one month before its expiration, apply to the Commissioner for a licence to take effect from the expiry of the current licence.

Transferability of licences

A licence issued in accordance with this Act is not transferable.

Renewal of a licence

The provisions of this Act relating to application for a licence and the issuance of a licence shall apply in relation to an application for the renewal of the licence and to the issuing of a renewed licence.

Refusal, suspension, modification and cancellation of licences

1. The Commissioner may refuse to issue or renew a fishing licence, or may suspend or cancel a fishing licence where he or she is satisfied that –
   a. information required to be given or reported under this Act or under Regulations is false, incomplete, incorrect or misleading;
   b. it is necessary to do so in order to give effect to a licensing program specified in an approved fisheries management plan; or
   c. the licensee engages in an activity prejudicial to the fishing industry.
2. The Commissioner may impose additional conditions or modify the terms of a fishing licence after giving notice as provided in subsection (3) to the licensee.
3. Where a licence is suspended or cancelled, notification of the cancellation or suspension shall be given to the person to whom the licence was issued within a period of at least seven days before the effective date of the suspension or cancellation.
4. A notification given under subsection (3) shall be in writing.
5. Subject to subsection (6), no reimbursement of licence fees will be due to a licensee following suspension, cancellation or modification of a licence.
6. In appropriate cases, where a fishing licence is suspended or cancelled on the grounds specified in subsection (1)(b), a proportion of the fees paid for the fishing licence representing the unexpired period of that licence or the period of suspension, shall be reimbursed to the licensee at the request of the licensee.

Authorisations for scientific research and experimental fishing

1. The relevant inland fishing authority, as the case may be, may authorise scientific research or experimental fishing operations in inland fisheries waters on completion of procedures required under this section.
2. In giving an authorisation under subsection (1), the relevant inland fishing authority may require the holder of the authorisation—
   a. to work with one or more relevant scientific partners appointed by the relevant inland fishing authority;
   b. to provide reports on the results of any research and all data generated, to the Government or other bodies nominated by the relevant inland fishing authority; and
   c. to comply with other conditions, as may be determined by the relevant inland fishing authority.
3. An authorisation granted under this section shall be in writing and be in the form determined by the relevant inland fishing authority.

4. A person authorised in accordance with this section shall comply with any applicable laws and the conditions of the authorisation.
5. The relevant inland fishing authority may refuse to issue, suspend or cancel the authorisation in accordance with this Act if there is a failure to comply with the requirements of this Act or the conditions of the authorisation.
6. A person who undertakes scientific research or experimental fishing operations without authorisation commits an offence and is liable on summary conviction to a fine under scale 2.

Appeals

1. Any person aggrieved by any decision of the Commissioner under this Part of this Act may, within fourteen days of receiving notice of that decision, appeal to the Commission in respect of that decision.
2. The Commission shall, on the advice of the Stakeholders Forum, without unreasonable delay, consider any appeal made under sub-section (1) and shall take such decision thereon as he or she deems fit.
3. The decision of the Commission on any appeal under this section shall be final.

PART 6 Aquaculture

Regulation of aquaculture

1. No person shall establish or operate any business or experimental operation involving aquaculture activities including the processing of aquaculture products without the written permission of the relevant aquaculture authority.
2. The relevant aquaculture authority may specify any conditions relating to the establishment or operation of aquaculture, including conditions or requirements relating to—
   a. the location and nature of the aquaculture operations;
   b. the fish or other aquatic organisms to be cultivated or not to be cultivated;
   c. the source of the stock;
   d. the construction of the aquaculture facilities and the operation of those facilities and measures in place to prevent the introduction of alien species;
   e. the use of appropriate antibiotics, other drugs and chemicals;
   f. the prevention of the spread of communicable fish diseases; and
   g. the inspection of aquaculture sites and facilities;
   h. disposal of waste water and other farm wastes;
   i. the provision of statistical, scientific and commercial information; and
   j. the conservation, management and sustainable use of the aquatic environment;
   k. other permits that maybe required by other agencies.

PART 7 Protection of Inland Fisheries Resources

Pollution of fisheries waters

1. A person who directly or indirectly introduces a harmful substance into the fisheries waters, or causes or fails to prevent the introduction of such a substance into the fisheries waters, which kills fish or adversely affects the fisheries or fish stocks, the habitat of fish, the health of fish, or the commercial quality of fish, including in relation to human health—
   a. shall be ordered by a Court to pay an amount that the Court may determine in compensation for loss suffered as a result of the introduction of the harmful substance and the related costs for remedial action;
   b. if the introduction was deliberate, reckless or negligent shall pay as aggravated damages, notwithstanding

any fine or other penalty which may become due under other legislation, an amount the Court may determine being an amount

i. up to five times the value of the compensation ordered under paragraph (a) in the case of oil or hydrocarbon pollution; or
ii. up to two times the value of the compensation ordered under paragraph (a) in the case of other harmful substances.

2. The compensation referred to in subsection (1)(a) shall be paid to the Commission, on behalf of affected persons, and its distribution to affected persons shall be determined by the Council.
3. For the purpose of this section, "harmful substance" means oil, hydrocarbons, chemicals or any other substance which may destroy, cause damage to or impair the viability of marine flora and fauna.
4. The Minister or Commissioner is empowered to issue licence for the establishment of fish farm that its water surface area one hectare for discharge of waste waters, escape of farmed fish into the fisheries waters and compliance with the other appropriate provision of this act.

Introduction or transfer of fish and import or export of fish

1. A person may not without written permission granted by the Minister –
   a. introduce or cause to be introduced into any inland water system, or transfer from one water system to another, any species of fish;
   b. import into Nigeria any live fish;
   c. export from Nigeria any live fish declared as endangered species under section 0.

Endangered species

1. The Minister may, by means of a notice published in the Gazette, designate as endangered any fish or other aquatic species which are designated as endangered under an international agreement to which Nigeria is a party or which the Minister considers, on the basis of the best available scientific information, ought to be so designated.
2. No person shall tranship, land, handle, sell, display or offer for sale, transport, store, receive or possess designated as endangered under subsection (1).
3. Any person who contravenes subsection (2) commits an offence and shall pay as a fine an amount equivalent to
   a. five times the current retail value of the fish or fish product in the market for which it is destined in the case of an artisanal fisher; or
   b. ten times the current retail value of the fish or fish product in the market for which it is destined in the case of an industrial or semi-industrial fisher.

PART 8 Monitoring, Control, Surveillance and Enforcement

SECTION 1 - Enforcement

Enforcement responsibility

1. In respect of sea fisheries, the Commission shall have the primary responsibility for fisheries enforcement in all maritime zones and in this regard shall consult as appropriate with the Ministry of Justice, the Nigerian Navy, the Marine Police and any other relevant federal or state governmental agency for the purposes of monitoring control and surveillance of all fishing operations and related activities within the fisheries waters and generally for the enforcement of the Act.
2. In respect of inland fisheries—
   a. the Commission and the State Commissioner, in respect of fishing activities with the State for which

the Commission is responsible, shall have concurrent responsibility for fisheries enforcement in respect of fish, fisheries and fishing operations for which the Commission is the relevant inland fishing authority; and

b. the State Commissioner shall have responsibility for fisheries enforcement in respect of other fish, fisheries and fishing operations within the jurisdiction of the State concerned.

Appointment of authorised officers

The Minister may appoint in writing any person or class of persons as authorised officer for the purposes mentioned in section 0Error! Reference source not found. or a) and such persons shall exercise all powers and privileges accorded by this Act.

Powers of authorised officers

1. For the purposes mentioned in section Error! Reference source not found. or a), an authorised officer may—
   a. stop, board, remain on board and search any vessel in the fisheries waters and any vessel registered under the laws of Nigeria outside the fisheries waters, which he or she reasonably believes is a fishing vessel or vessel engaging in other activities relating to fishing;
   b. stop, board, remain on board and search, as the case may be, any vessel, vehicle or aircraft which he or she reasonably believes may be transporting fish or engaging in other activities relating to fishing;
   c. require the master or any crew member or other person aboard to inform him or her of the name, call sign and country of registration of the vessel and the name of the master, owner, charterer and crew members;
   d. examine the master or any crew member or other person aboard a fishing vessel about any fish or other cargo on board, the contents of holds and storage spaces, the voyage and activities of the vessel;
   e. make such examination and inquiry as may appear necessary to him or her concerning any vessel, vehicle or aircraft in relation to which any of the powers conferred by this subsection have been or may be exercised and take samples of any fish or fish product found therein;
   f. require to be produced, examine and take copies of any license, logbook, record or other document including electronic records or documents required under this Act or concerning the operation of any vessel, vehicle or aircraft;
   g. make an entry dated and signed by him or her in the logbook of such vessel, vehicle or aircraft;
   h. require to be produced and examine any fish, fishing gear or appliance or explosive, poison or other noxious substance;
   i. take samples of any fish found in any vessel, vehicle or aircraft;
   j. give directions to the master and any crew member of any vessel, vehicle or aircraft stopped, boarded or searched as may be necessary or reasonably expedient for any purpose specified in this Act or to provide for the compliance of the vessel, vehicle or aircraft, or master or any crew member with the conditions of any licence;
   k. endorse any licence; and
   l. arrest any person who assaults him or her or obstructs the performance of the legitimate exercise of his or her duties under this Act.
2. If an authorised officer who makes an arrest under subsection (l) is not a police officer, he or she shall without delay take such person to a police officer, or in the absence of a police officer shall take such person to the nearest police station.
3. An authorised officer additionally has all of the powers of a fisheries observer under section 0.
4. Where an authorised officer has reasonable grounds to believe an offence against this Act is being or has been committed, he or she may without a warrant:

a. enter and search any premises, other than premises used exclusively as a dwelling-house, in which he or she has reasonable grounds to believe an offence has been or is being committed or fish taken illegally are being stored;
b. stop, enter and search and stay in or on any vehicle or aircraft which he or she reasonably suspects of transporting fish or fish products or vessel engaging in other activities relating to fishing;
c. stop, board and search outside fisheries waters any fishing vessel or engage in hot pursuit in accordance with international law where such pursuit is commenced within the fisheries waters, whenever he or she has reasonable grounds to believe that such vessel has been used in the commission of an offence under this act, and in exercise of any powers conferred by this Act in accordance with international law, and to bring such vessel and all persons and things on board within the fisheries waters;
d. require to be produced, examine and take copies of any license, logbook, record or other document or electronic record required under this Act or concerning any operations or activities carried out which are subject to this Act;
e. make any entry dated and signed by him or her in a record or other document;
f. required to be produced and examine any fish, fishing gear, equipment, stores or machinery;
g. take sample of any fish found in any place inspected or searched under this Act; seize–
    i. any vessel (including its fishing gear, equipment, stores and cargo), vehicle, fishing gear, nets or other fishing appliances or aircraft which he or she has reasonable grounds to believe has been or being used in the commission of such offence or in respect of which the offence has been committed;
    ii. any fish or fishery products which he or she has reasonable grounds to believe have been caught in the commission of an offence or are possessed in contravention of this Act;
    iii. any logs, charts or other documents or electronic records required to be maintained by this Act or under the terms of any permit or other authorisation or which he or she has reasonable grounds to believe show or tend to show, with or without other evidence, the commission of an offence against this Act; and
    iv. anything which he or she has reasonable grounds to believe might be used as evidence in any proceedings under this Act;
    v. arrest any person whom he or she has reasonable grounds to believe has committed an offence against this Act, and if the authorised officer making such arrest is not a police officer, he or she shall without delay take such person to a police officer, or in the absence of a police officer shall take such person to the nearest police station.

5. The powers in subsection (4) include the right to enter without restriction Nigerian seaports and airports and any other premises that are controlled by other Federal or State authorities.
6. An authorised officer may, in arresting any person or fishing vessel, which he or she has reasonable grounds to believe, has done any act in contravention of this Act:
7. use such force as is reasonably necessary in the circumstances to effect the arrest;
8. call upon such person or persons as may be necessary to render assistance in enforcement activities for such time as he or she may require, and duties owed to authorised officers under this Act shall be owed to such person or persons while acting at the request and under the instructions of such authorised officer.
9. A written receipt shall be given for any article or thing seized under this section and the grounds for such seizure shall be stated in such receipt.
    a. A person arrested without a warrant under this section shall be taken to a police station and dealt with in accordance with the law.
    b. An authorised officer may, for the purposes of enforcing this Act, with or without a warrant or other process—

c. execute any warrant or other process issued by any court of competent jurisdiction; and
d. exercise any other lawful authority.

Duties to authorised officers and observers

1. The operator, master, and each crew member of any fishing vessel, the driver of any vehicle and the pilot and crew of any aircraft shall immediately comply with every instruction or direction given by an authorised officer or observer as appropriate, and facilitate safe boarding, entry and inspection of and exit from the vessel, vehicle or aircraft and shall allow inspection and removal of any fishing gear, equipment, records, fish and fish products.
2. The operator, master, and each crew member of a vessel, driver of a vehicle and pilot and crew of an aircraft shall ensure the safety of an authorised officer or observer as appropriate in the performance of his duties.
3. Every person commits an offence who contravenes subsections (1) or (2), or—
   a. assaults, obstructs, resists, delays, refuses boarding to, intimidates or fails to ensure the safety of or otherwise interfere with an authorised officer or observer in the performance of his or her duties;
   b. incites or encourages any other person to assault, resist, or obstruct any authorised officer while in the execution of his or her powers or duties, or any person lawfully acting under the officer's orders or in his or her aid;
   c. uses threatening language or behaves in a threatening or insulting manner or uses abusive language or insulting gestures towards any authorised officer or observer while in the execution of his or her powers or duties, or any person lawfully acting under an authorised officer's orders or in his or her aid;
   d. fails to comply with the lawful requirements or any authorised officer or observer;
   e. furnishes to any authorised officer any particulars, which are false or misleading in any material respect;
   f. personates or falsely represents himself to be an authorised officer, or who falsely represents himself to be a person lawfully acting under an authorised officer's orders or in his aid;
   g. resists lawful arrest for any act prohibited by this Act;
   h. is in breach of any other duty to an authorised officer or authorised observer under this Act.
4. For the purpose of subsection (3), any person who does not allow any authorised officer, or any person acting under his or her orders or in his or her aid, or an observer to exercise any of the powers conferred on such person by this Act shall be deemed to be obstructing that officer or person.
5. Every person who, being a master, owner, charterer, agent, or a company established under the laws of Nigeria which owns, partly owns or controls a fishing vessel which transports an authorised officer or observer outside the fisheries waters and causes him or her to disembark outside the territory of jurisdiction of Nigeria against his or her wishes, instructions or orders, commits an offence and upon conviction shall be liable, in addition to any fine, for all costs of repatriation including board and lodging while out of Nigeria and direct transportation to Nigeria.

Identification of authorised officers and observers

An authorised officer or observer when exercising any of the powers conferred on him or her by this Act shall on request produce identification to show he or she is an authorised officer or observer under this Act.

Insurance protection for authorised officers and observers

The Federal or State Government shall arrange for full insurance protection for all authorised officers and observers for the duration of their sea or inland waters duties.

Confidentiality

1. Any person carrying out duties or responsibilities under this Act, including the Minister, the Director General, authorized officers and observers, shall not, unless authorized in accordance with this Act, reveal information or other data of a confidential nature acquired by virtue of their authority, duties and responsibilities to any person not having such authority or carrying out such duties and responsibilities.
2. The Director General or Commissioner may authorize in writing any person to
   a. receive or access confidential information; or
   b. access or restrict access to such premises holding confidential information as he or she may designate.
3. The following information shall be confidential –
   a. any information or data of a commercial nature provided in records, returns, or other documents required under this Act or regulations under it;
   b. any information or other data supplied by a vessel monitoring system in accordance with this Act or regulations under it; and
   c. such other information or data as may be prescribed from time to time.
4. Confidential information may be disclosed to the extent –
   a. that disclosure is authorized or required under this Act or any other law;
   b. that the person providing the information authorized its disclosure;
   c. necessary to enable the Minister or Commissioner to publish statistical information relating to the fisheries sector or State's; or
   d. necessary to enable advice to be given to the Minister or Commissioner.
5. The Director General may authorize the release of any information supplied by a vessel monitoring system relating to the position of any vessel, upon request, to the responsible authority for purposes including surveillance, search and rescue and other emergency, and may authorize the release of such other confidential information for such purposes as may be prescribed.
6. Any person who violates the requirements of this section commits an offence and, in addition to any penalty, his or her appointment or other authority under this Act may be reviewed and terminated by the appropriate authority.

Observers

1. The Minister may designate in writing persons to act as observers on vessels issued with valid licences or authorisations pursuant to this Act.
2. Observers shall exercise scientific, compliance, monitoring and other functions.
3. Observers shall be permitted to board any vessel issued with a valid licence or authorisation pursuant to this Act and remain on such vessel for the purpose of exercising the observer's functions.
4. The operator, master and each member of the crew of such vessel shall allow and assist an observer to—
   a. board and remain on such vessel for the purpose of carrying out his or her duties and functions, at such time and place as the observer may require;
   b. have full access to and the use of facilities and equipment on board the vessel which the observer may determine is necessary to carry out his or her duties, including, but not limited to –
      i. full access to the bridge, fish on board and areas which may be used to hold, process, weigh and store fish;
      ii. full access to the vessel's records including its log,VMS records and documentation for the purpose of records inspection and copying;
      iii. full access to fishing gear on board;
      iv. full access to navigation equipment, computer equipment,VMS equipment, and radios;
   c. take and remove from the vessel reasonable samples for the purposes of scientific investigation and other relevant information;
   d. take photographs of the fishing operations, including fish, fishing gear, equipment, charts and records,

and remove from the vessel such photographs or film as he or she may have taken or used on board the vessel;
e. send or receive messages by means of the vessel's communications equipment; and
f. gather any other information relating to fisheries in the fisheries waters or other areas as may be authorised by licence or authorisation;
g. carry out his or her duties safely; and
h. disembark at such time and place and with any items collected in accordance with this Part as may be determined by the Director General or Commissioner or wherever reasonably necessary for operational reasons.

5. The operator shall provide the observer, while on board the vessel, at no expense to the observer or Government, with food, accommodation and medical facilities equivalent to officers or such reasonable standard as may be acceptable to the Minister.
6. In addition to the requirements in subsection (5), the Minister or Commissioner may require the Commission to pay in full the following costs of the authorised observer—
   a. travel costs to and from the fishing vessel;
   b. such allowance as may be notified by the Director General or State Director of Fisheries, being the full amount of such salary for the time spent travelling to and from the fishing vessel and on board the fishing vessel; and
   c. the cost of proving insurance protection.
7. Any operator and master of any vessel with a valid licence issued in accordance with this Act shall allow and assist any observer to have full access to any place within the territory or jurisdiction of Nigeria where fish taken in the fisheries waters is unloaded or transhipped, to remove samples and to gather any information relating to fisheries in the fisheries waters.

Vessel monitoring systems

1. The Minister, subject to the requirements of this section, and in respect of sea fisheries only, may require any fishing vessel, class of fishing vessel or fishing vessel within a particular fishery or sub-sector of the fishing industry, to comply with the requirements of a VMS.
2. For the purposes of subsection (1), and subject to subsections (3) and (4), the Minister may establish rules for the application, operation and enforcement of VMS by means of regulations made under section .
3. Where regulations are made under this Act in relation to VMS, "other ministries and agencies of the Federal Government" in section 13(3)(c) shall include the Ministry of Transport and the National Space Research and Development Agency.
4. Regulations made under this Act in relation to VMS may –
   a. specify the characteristics of any satellite tracking devices or equipment that must be used in any VMS;
   b. specify the requirements that must be met by the master of a fishing vessel subject to VMS and by any other person with responsibilities concerning the VMS;
   c. prescribe matters in relation to the transmission, collection, holding, use and monitoring of data;
   d. specify information to be provided when applying for a licence under section 0, and make it a requirement for the granting of a licence that certain conditions are met;
   e. prohibit a fishing vessel subject to VMS from leaving a port without an operational satellite-tracking device installed on board;
   f. provide that the cost of operating and maintaining VMS be borne by the owners, operators or charterers of fishing vessels subject to VMS and, where necessary, recovered by means of licence fees or otherwise; and
   g. prescribe any matters, which are required for the purposes of VMS.

SECTION 2 – Sale, Release and Forfeiture of Property

Seizure of vessels

1. Where any vessel is seized under this Act:
   a. the master and crew shall take to such port as the authorised officer shall designate, being the nearest or most convenient port;
   b. the master shall be responsible for the safety of the vessel and each person on board the vessel, including the crew, himself and any authorised officer until the vessel arrives at the designated port.
2. If the master fails or refuses to take the seized vessel to the designated port then an authorised officer or person called upon to assist him or her may do so.
3. If a vessel is taken to port in the circumstances described in paragraph (2), no claim whatever may be made against any authorised officer or the government in respect of any damage, injury, loss or death that occurs while the vessel is being so taken, subject to the provisions of the Act.
4. The provisions relating to vessels and masters described in subsections (1) to (3) apply mutatis mutandis to vehicles and aircraft seized in accordance with this Act, and their drivers and pilots respectively.
5. The authority which seized the vessel shall deliver the vessel to the Director General or Commissioner who shall pass it on to the appropriate bodies for its custody until final judgment or other determination.

Release of seized vessels, etc.

1. Subject to the other provisions of this section, where an offence is committed under this Act in relation to a fishing vessel, an aircraft, a vehicle or any other item, the fishing vessel, aircraft, vehicle or items may be arrested or seized and detained pending the conclusion of proceedings arising from the offence.
2. A Court may, on application, order the release of a fishing vessel together with its fishing gear, equipment, stores and cargo, vehicle, an aircraft or any other items seized under this Act on receipt of the bond or any other form of security determined by the Court.
3. In determining the value of the bond or any other form of security, the Court shall consider the aggregate amount of the value of the property to be released, an estimated total fine or any other penalty provided for the offences charged or likely to be charged and the costs the prosecution is likely to recover if a conviction were entered, and may set the value at the aggregate amount.
4. Notwithstanding subsection (3), the amount determined by the Court under this section shall not be less than the fair market value of the property to be released or the aggregate minimum fine or penalty for each offence charged, whichever is greater.
5. Where a vessel, vehicle, an aircraft or any other item seized is released on the lodging of a bond or any other form of security, the Court shall, in the order, state separately the sums of money in the currency specified by this Act which are attributable to the property to be released, the total fine or fines and the likely costs.
6. The release of a bond or any other form of security under this section shall be conditional on—
   a. a finding by the Court that the vessel, aircraft, vehicle or any other item has not been used in the commission of an offence under this Act, or
   b. payment in full within thirty days of the judgment of the Court of a fine imposed by the Court and the costs ordered to be paid by the Court.
7. Subsection (2) does not require a Court to release a vessel, a vehicle, an aircraft or any other item if it might be required as an exhibit in court proceedings or is reasonably required for further investigations of offences under this Act.

Sale of seized perishable goods

1. Fish or any other item of a perishable nature seized under this Act or the proceeds of sale of that fish or item shall be held and dealt with in accordance with this Act.
2. The Director General or Commissioner may direct the sale of the fish or the other items referred to in subsection (1) and the proceeds of the sale shall be deposited with a Court pending the outcome of court proceedings under this Act, except that where, after making all reasonable effort, the fish or any other items cannot be sold, or where they are unfit for sale, the Director General or State Director of Fisheries may dispose of them in any manner that the Director General or State Director of Fisheries deem fit.
3. The Director General or State Director of Fisheries shall notify the owner or apparent owner of the perishable goods seized, of the sale or other means of disposal, and the owner or the nominee of the owner may be present at the sale or point of disposal.

Application of bond

1. A bond, security or the net proceeds of sale held in respect of a vessel, vehicle, an aircraft or any other item shall be applied in the following order—

a. the discharge of a forfeiture ordered under this Act;
b. the payment of the fines or penalties for offences under this Act or penalties imposed under this Act arising out of the use of or in connection with the vessel, vehicle, aircraft or other item, and the amount remaining shall be returned to the owner or the agent of the owner.

Disposal of forfeited goods

1. A vessel, vehicle, an aircraft or any other item ordered to be forfeited under this Act may, at the expiry of the time limited for appeal and if an appeal is not lodged, be disposed of in the manner determined by the Director General or the Commissioner.
2. A vessel, vehicle, an aircraft or any other item seized under this Act but not forfeited in legal proceedings may be held by the Director General or State Director of Fisheries or any other appropriate agency appointed by him until the fines, orders for costs and penalties imposed under this Act have been paid and, failing payment within the time allowed, may be sold and the balance of the proceeds returned to the person entitled in accordance with this Act after deduction of the fines, orders for costs, penalties imposed under this Act and costs of sale.

Liability for loss, damage or deterioration of vessels and other items in custody

Subject to this Act, the Director General or State Director of Fisheries shall take or arrange for reasonable care to be taken of a vessel and any item in its custody pursuant to this Act, but is not otherwise liable to a person or corporate entity for a loss, damage to or deterioration in the condition of a vessel, vehicle, an aircraft, a cargo or any other item while in the custody of the Director General or State Director of Fisheries under this Act.

PART 9 Enforcement

SECTION 1 – Sanctions

Administrative penalties

1. Subject to subsection (4) the Council may, where it is satisfied that a person has committed an offence under this Act, and that person has in writing admitted to having committed the offence and expressed willingness that the offence be so dealt with, compound the offence by accepting on behalf of the

Government from that person a sum of money of not less than the minimum penalty specified for the offence plus the fair market value of the fish caught illegally, and the sum when paid shall immediately be paid into the Fund.

2. In compounding an offence, the Council shall take into account a report, which may be prepared by the prosecutor as to the details of the offence for which that person would otherwise be charged, and the minimum penalty level for the offence.
3. In addition to the requirements of subsection (1), the Council shall require that a person who has previously committed an offence under this Act and seeks to have a current offence compounded shall pay not less than the minimum penalty plus ten per cent of the minimum penalty for each offence previously committed.
4. Compounding of an offence under this section shall be with the consent of the prosecutor.
5. On compounding an offence under this section, the Council may order the release of an article seized under this Act or the proceeds of sale of the article on conditions determined by the Council, but the Council shall not order the release unless the penalties have been paid in full.
6. The compounding of an offence under this section is valid on the payment of the fine or penalty determined by the Council, and the notification in writing on payment signed by the chairman of the Council and the offender, to the appropriate court.
7. The compounding of an offence is not effective if the full amount of the penalty is not deposited with the Commission within thirty days of the decision, and the matter shall, in that event, revert to the Court.
8. A person aggrieved by a decision of the Council may appeal to the High Court against a penalty imposed under this section.
9. Where the Council compounds an offence under this section, the person concerned is not liable for prosecution for the offence.
10. The Council may in writing assign the function conferred by this section to the Director General, under the supervision of the Council.

Fines

1. Any person who –
   a. contravenes or fails to comply with any provision of this Act; or
   b. contravenes or fails to comply with any requirement made under this Act;
   c. contravenes or fails to comply with any condition endorsed on a licence; or
   d. is in breach of any regulation made under this Act,
   e. commits an offence under this Act and, if no penalty is prescribed, liable on conviction to a fine under scale 1 of Part A, Part B or Part C, as the case may be, to Schedule 2.
2. Upon conviction for an offence under this Act for which the penalty is specified to be a fine, the following fines shall apply—
   a. in the case of an inland fisher or inland fishing vessel, whether registered in Nigeria or otherwise, the fines set out in Part A to Schedule 2;
   b. in the case of an artisanal fisher or fishing vessel, whether registered in Nigeria or otherwise, the fines set out in Part A to Schedule 2;
   c. in the case of an industrial or semi-industrial fisher or fishing vessel registered in Nigeria, the fines set out in Part B to Schedule 2;
   d. in the case of a person who is not a fisher or is not on board a fishing vessel, the fines set out in Part B to Schedule 2; and
   e. in the case of a foreign industrial or semi-industrial fisher or fishing vessel, the fines set out in Part C to Schedule 2.

Review and Revision of fines

The fines specified in the Schedule may from time to time be reviewed and revised by means of regulations made by the Minister under section 0.

Fines for foreign fishing vessels

Fines payable by foreign fishing vessels under section 0(2)(e) shall be paid in United States dollars or such other currency as the Minister may prescribe.

Forfeiture of property on conviction

1. Upon the conviction of any person engaged in foreign fishing for an offence under this Act, a Court shall, in addition to imposing any fine, order that the property listed in subsection (4) be forfeited to the Government unless the Court considers that there are particular circumstances to order otherwise.
2. Upon the conviction of any other person, other than a person described in subsection (3), for an offence under this Act, a Court may, in addition to imposing any fine, and if it is equitable to do so, order that some or all of the property listed in subsection (4) be forfeited to the Government.
3. Upon the conviction of a person who is an artisanal fisher for any offence under this Act, a Court may, in addition to imposing any fine, and if it is equitable to do so, order that the property listed in subsection (4)(b), (c) and (d) be forfeited to the Government.
4. The property to which this section applies is—
    a. any property used in respect of the commission of the offence (whether or not seized pursuant to section 0 of this Act);
    b. any fish found on-board any vessel at the time it was seized or detained pursuant to this Act and in any other case any fish in respect of which the offence was committed (whether or not seized pursuant to section 0 of this Act);
    c. any proceeds from the sale of such property or fish pursuant to section 0 of this Act; and
    d. any illegal fishing gear in respect of which the offence was committed (whether or not seized pursuant to section 0 of this Act).

Prohibition order

1. Where a person is convicted of an offence under this Act, the Court may in addition to any other penalty or forfeiture, order that for a period not exceeding five years that person is prohibited from going on or remaining aboard a fishing vessel in the fisheries waters.
2. A person who contravenes an order made under subsection (1) commits an offence and, in addition to any penalty, which may become due under this Part, may be subject to the inherent jurisdiction of the Court in relation to contempt of court proceedings.
3. A master of a fishing vessel who has on board a person the master knows is subject to a prohibition order under subsection (1) also commits an offence.

SECTION 2 – Jurisdiction and Evidence

Jurisdiction of the Court

1. Any act or omission in contravention of any of the provisions of this Act, or in contravention of any provisions of any regulations under this Act, which is committed—
    a. by a person within the territory of Nigeria or within fisheries waters;
    b. by a person outside of the territory of Nigeria or the fisheries waters, but on board a fishing vessel or other maritime vessel registered in Nigeria; or
    c. by a Nigerian national or person ordinarily resident in Nigeria in any place other than that described

in paragraphs (a) or (b),

d. shall be subject to the jurisdiction of the Court as if the act or omission had taken place in Nigeria within the local limits of the jurisdiction of the court in which proceedings are taken.

Burden of proof

In any proceedings under this Act, where a person is charged with having committed an offence involving an act for which a licence or other authorisation is required under this Act, the burden is on that person to prove that at the material time the requisite licence or authorisation was held by him or her.

Certificate evidence

1. The Director General or State Director of Fisheries may give a certificate stating that—
   a. a specified vessel was or was not, on a specified date, a national fishing vessel or a foreign fishing vessel;
   b. a specified vessel or person was or was not, on a specified date, the holder of a specified licence;
   c. a particular location or area of water was, on a specified date, within the fisheries waters, or within a closed, limited, restricted or in any other way controlled area of the fisheries waters, or an area of the fisheries waters subject to specified conditions;
   d. an appended chart or map shows the boundaries, on a specified date, of the fisheries waters, closed or limited areas or any other areas or zones delineated for a specified purpose;
   e. a particular item or piece of equipment is fishing gear;
   f. the death of or injury to a fish was caused in a particular manner;
   g. an appended document is a true copy of an approved charter agreement, an access arrangement or related agreement;
      i. a call sign, name or number is that of or allotted under a system of naming or numbering of vessels to a particular vessel; or
      ii. a particular position or catch report, a copy of which is appended, was given in respect of a specified vessel.

Photographic evidence

1. Subject to subsection (2), where a photograph is taken of any fishing activity, or of any other activity related to a fishing activity, and—
   a. simultaneously the date, time and position from which the photograph is taken are superimposed on the photograph; or
   b. the date, time and position are certified on the photograph at a later date by an authorised officer or fisheries observer who was present at the time the photograph was taken,
   c. then it is presumed, unless the contrary is proved, that the photograph was taken on the date, at the time and in the position so appearing and shall be received in evidence by the Court.
2. The presumption set out under subsection (1) shall arise only if—
   a. in the case of subsection (1)(a), the camera taking the photograph is connected directly to the instruments which provided the date, time and position concerned; and
   b. in either case, the photograph was taken by an authorised officer or a fisheries observer.
   c. An authorised officer or fisheries observer who takes a photograph of the kind described in subsection (1) may give a certificate in relation to that photograph stating—
      i. his or her name, address, official position and authority under which he or she is appointed;
      ii. the name and call sign, if known, of any fishing vessel appearing in the photograph;
      iii. the name of the apparatus supplying the date and time and the position fixing instrument and a declaration that he or she has checked those instruments a reasonable time before and after the

taking of the photograph and that they all appeared to be working correctly;

d. the matters, as appropriate, in subsection (2)(a);
e. the accuracy of the position-fixing instrument used, within the internationally accepted margin of errors or standards relating to such instrument; and
f. the maximum possible distance and the direction of the subject of the photograph away from the camera at the time the photograph was taken.

Validity and procedures for certificates

1. Unless the contrary is proved, a document purporting to be a certificate issued under either section 0 or 0 shall be regarded a certificate duly issued under this Act.
2. Where a certificate issued under either section 0 or 0 is served on a defendant seven or more days before its production in court in proceedings under this Act, the certificate is, unless the contrary is proved, sufficient evidence of the facts averred in it.
3. Where a certificate issued under either section 0 or 0 is served on a defendant fourteen or more days before its production in court and the defendant does not, within seven days of the date of service, serve notice of objection in writing on the prosecutor, then the certificate is, unless the Court finds the defendant is unduly prejudiced by a failure to object, conclusive proof of the facts averred in it.

Destruction of evidence

A person who destroys or abandons fish, fishing gear, a net or any other fishing appliance or any other thing with intent to avoid their seizure or the detection of an offence under this Act commits an offence and is liable on summary conviction to a fine under scale 2.

Liability of master and officers of companies

1. Where an offence under this Act is committed by a person on board or employed on a fishing vessel, the master of the vessel shall be deemed to have committed that offence.
2. Where an offence under this Act is committed by a company or by a member of a partnership firm or business, every director, manager, secretary or other officer of that company directly connected with the activity or any other member of the partnership or other person concerned with the management of the firm or business shall be deemed to have committed the offence unless that person proves to the satisfaction of the Court that—
   a. that person used due diligence to secure compliance with the Act; and
   b. the offence was committed without the knowledge, consent or connivance of that person.

PART 10 Regulations

Regulations

1. Subject to the provisions of this Act [and of the Constitution], the Minister may make regulations to—
   a. regulate, prohibit or restrict fishing in any specific areas within the fisheries waters;
   b. regulate, prohibit or restrict fishing by a specified class of persons;
   c. regulate, prohibit or restrict the use of any fishing vessel, fishing gear or method;
   d. regulate, prohibit or restrict the catching, from any area, of fish by reference to a specified size, weight or species;
   e. regulate or restrict by-catch and discards within in a particular fishery, including requirements on the use of specified by-catch reduction devices;
   f. regulate, prohibit or restrict the transhipping, landing, handling, sale, displaying or offering for sale, transporting, storing, receiving or possession of fish or fish products (whether on a fishing vessel or

on-shore) and the times and places at and in which the landing of fish may be effected;
g. prescribe matters relating to licensing;
h. regulate fisheries research;
i. provide for the promotion and regulation of fisheries marketing, trade and standards, including without limitation –
j. in relation to quality assurance, protection of human health, food hygiene, disease control and traceability, and
k. in relation to the control, inspection and conditions of operation of fish processing establishments;
l. prescribe matters for monitoring, control and surveillance of fishing vessels, fish processing and handling establishments and, as appropriate, fishers and other operators in the fishing industry;
m. prescribe matters relating to the operation of VMS;
n. to provide guidelines aimed at encouraging persons engaged in inland fishing to make voluntary arrangements on a comparative or other basis for the selling of fish or the buying of equipment, supplies and other requisites for the
o. fishing industry and to provide for financial or other assistance for bringing the arrangement into operation;
p. for the registration of distributors and retailers of fish or fish products and of
q. any premises used for the distribution or retailing and for the accounting and
r. the records to be kept and the information to be furnished by them in relation
s. to their business;
t. regulate any other matter required to implement this Act.

2. Regulations made under this Act may specify that a person who contravenes or fails to comply with a certain requirement or other matter commits an offence and may provide that a person guilty of such an offence is liable to a fine or other penalty, consistent with the limits set by this Act.
3. Before making regulations under subsection (1) or (2), the Minister shall –
   a. obtain appropriate scientific advice;
   b. seek and consider the opinion of the National Fisheries Stakeholder Forum on the proposed regulations;
   c. consult with other relevant ministries and agencies of the Federal or State Governments; and
   d. take into account of the Objectives and General Principles of this Part.
   e. After making regulations under subsection (1), the Minister shall publish them in the Gazette and shall take such other steps as are considered necessary by him or her to notify stakeholders affected by the regulations.

PART 11 General

Savings

All regulations, orders and notices made or given under the Sea Fisheries Act 1992 and the Inland Fisheries Act 1992 shall, except so far as they are inconsistent with this Act, continue to have effect as though made, given, or issued under this Act.

Validity of licences and authorisations

All licences or authorisations granted or appointments made under the Sea Fisheries Act 1992 and the Inland Fisheries Act 1992, valid and in force immediately before the coming into operation of this Act, shall continue, on such coming into operation, to have full force and effect for the term for which they were granted or made or until they expire or are revoked according to law as if the Act under which they were granted or made had not been repealed.

Repeal

The Sea Fisheries Act 1992 and the Inland Fisheries Act are repealed.

PART 12 Interpretation

Interpretation

In this Act, unless the context otherwise requires—

"access arrangement" means a treaty, an agreement or arrangement entered into under section 0;

"aquaculture" means any activity designed to cultivate or farm fish and other living aquatic resources, and includes the cultivation, propagation or farming of aquatic organisms from eggs, spawn, spat or seed, or by rearing fish or aquatic plants lawfully taken from the wild or lawfully imported into Nigeria, or by other similar process;

"artisanal fishing" means canoe fishing or fishing by other traditional small-scale means, and artisanal fisher shall have the corresponding meaning;

"authorised officer" means a person appointed under section 0;

"canoe" means a dug-out canoe or fabricated boat, whether planked or unplanked, which is propelled by means of sails, oars, paddles, poles, outboard or small inboard engine or a combination of any of them;

"closed area" means an area or zone in which a prohibition, of limited or indefinite duration, is placed on fishing activities or on certain fishing activities in respect of type of fish, fishery, fishing method as may be specified;

"closed season" means a period during which a prohibition is placed on fishing activities in respect of type of fish, fishery, fishing method or other parameters as may be specified;

"Commissioner" means the Commissioner responsible for Fisheries in a State;

"Court" means a court of competent jurisdiction;

"exclusive economic zone" means the exclusive economic zone of Nigeria as defined in the Exclusive Economic Zone Act 1978;

"Director General" means the Director General of the Fisheries Commission;

"fish" means any living aquatic organism, plant or animal, [whether vertebrate or invertebrate] [and includes finfish, shellfish, coral, reptile, amphibian, marine mammal and invertebrate], but does not include aquatic birds;

"fish aggregating device" includes;

a man-made or partly man-made floating or semi-submerged device, or directly placed natural materials, whether anchored or not, intended for the purpose of aggregating fish, and

a natural floating object on which a device has been placed to facilitate its location;

"fish processing" includes a process that adds value to or preserves the fish and the dismembering, cleaning, sorting, lining, freezing, canning, salting, smoking and any other process of preserving fish;

"fishery product" means any product derived from fish and includes fish oil, fish fillet, fish skin, fish scale, fish fin, fishmeal, stockfish, stockfish head, [molluscs, shellfish], whether found in Nigerian waters or imported;

"fishery" or "fisheries" means one or more stocks of fish or the operations based on those stocks which can be treated as a unit for purposes of conservation and management, taking into account geographical, scientific, technical, cultural, economic, recreational and any other relevant characteristics;

"fisheries waters" means inland fisheries waters and sea fisheries waters;

"fishing" means,

- searching for, catching, taking or harvesting of fish;
- the attempted searching for, catching, taking or harvesting of fish;
- engaging in any other activity which can reasonably be expected to result in the locating, catching, taking or harvesting of fish;
- placing, searching for or recovering a fish aggregating device or associated equipment including radio beacons;

an operation in support of or in preparation for an activity within the meaning of this definition; or
the use of an aircraft in relation to an activity described in this definition;
"fishing gear" means any equipment, implement or any other thing that can be used in the act of fishing, whether or not it is used in connection with a vessel, including a fishing net, rope, line, float, trap, hook or winch;
"fishing licence" includes a fishing right;
"fishing vessel" includes a vessel, boat, ship, canoe or any other craft, whether motorised or non-motorised, which is used for, equipped to be used for, or of a type that is normally used for–
fishing,
the processing or storage of fish or fishery products,
the transportation of fish or fish products from the fishing grounds,
any related activity or any other activity in relation to the supply or support of vessels used for the purposes described in paragraphs (a), (b) or (c), but does not include a vessel used for the transportation of fish or fish products to or from a port in Nigeria as a part of its general cargo unless it engages in any of the activities in paragraphs (a) to (d);
"Forum" means the National Fisheries Stakeholder Forum;
"geopolitical zone" means one of the officially recognised geopolitical zones in Nigeria;
"industrial fishing vessel" means a motor fishing vessel equipped with hydraulic equipment and using industrial gears;
"inland fisheries waters" means any waters in Nigeria landward of the sea fisheries waters and includes rivers, wetlands, flood plains and lakes, reservoirs and ponds (whether natural or man-made);
"licensed fishing vessel" means a fishing vessel specified in a valid fishing licence;
"master", in relation to a fishing vessel, means the person for the time being in command or apparently in charge of that vessel;
"Minister" means the Federal Minister responsible for Fisheries;
"operator" includes a person who is in charge of, directs or controls a vessel, the owner, charterer and master;
"owner", in relation to a fishing vessel, includes

- a person exercising or discharging or claiming the right of accepting the obligation to exercise or discharge any of the functions of an owner whether on behalf of the owner or on behalf of another person,
- a person who is the owner jointly with any other person or persons, and
- a manager, director or secretary of a body corporate or company, but does not include a person in possession under a charter-party;

"person" includes a natural and a legal person;
"recreational/Sport fishing" means fishing for personal use, or leisure without the intention of selling the fish;
"related activity" includes doing, attempting or preparing to do or having done any of the following:

- transhipment,
- storing, processing or transporting fish taken from the fisheries waters up to the time the fish is first landed, or
- refuelling or supplying fishing vessels or performing any other activities in support of fishing operations;

"relevant fishing authority" means the authority described in section Error! Reference source not found.;
"sea fisheries waters" means the internal waters, including estuarine waters, the territorial sea, as defined in the Territorial Waters (Amendment) Act 1998, and the exclusive economic zone;
"semi-industrial vessel" means a fishing vessel powered by an inboard engine, and excludes artisanal fishing vessels and industrial vessels as defined in this section;
"subsistence fishing" means fishing for the direct consumption of the families and kin of the fishers and excludes any sale of the fish;

"support vessel" means a vessel carrying out operations in connection with and in support of a fishing vessel, including supply and any other fishing activities;
"transhipment" means transferring a fish or fish products to or from a vessel, whether or not the fish has first been taken on board the vessel from which the fish is passed; and
"vessel monitoring system" or "VMS" means a satellite-based or other type of reporting system that is capable of monitoring fishing and related activities of fishing vessels, and may include the use of an automatic location communicating device.

SCHEDULE 1

Rules of Procedure of the Council

Meetings of the Council

1. The Council shall meet at least once in every three months for the conduct of business at the times and places determined by the members.
2. The chairperson shall summon a special meeting of the Council within fourteen days of the receipt of a written request signed by not less than five members of the Council.
3. A member who is absent without reasonable excuse from three consecutive meetings of the Council, or is incapacitated and unable to attend meetings for one whole year, ceases to be a member.
4. The chairperson shall preside at the meetings of the Council and in the absence of the chairperson a member of the Council elected by the members present from among their number shall preside.
5. The validity of the proceedings of the Council shall not be affected by a vacancy in its membership or by a defect in the appointment or qualification of a member.
6. Except as otherwise provided in this Act, the Council shall determine and regulate its own rules of procedure at its meetings.

Power to co-opt

The Council may co-opt a person as an adviser at any of its meetings but a co-opted person is not entitled to vote at a meeting.

Committees

The Council may establish such committees, as it considers necessary for the effective performance of its functions.

A committee established under subsection (1) may consist of members of the Council or members and non-members.

The Council shall supervise the functioning and activities of any committee established under subsection (1) and shall determine the scope, functions and rules of procedure of any such committee.

SCHEDULE 2

Fines

Part A Fines for inland fishing and artisanal fishing

Scale	Minimum	Maximum
1	N 5,000	N 50,000
2	N 50,000	N 250,000

Part B Fines for industrial fishing

Scale	Minimum	Maximum
1	N 100,000	N 500,000
2	N 500,000	N 2,500,000

Part C Fines for foreign fishing

Scale	Minimum	Maximum
1	US$ 500,000	US$ 1,000,000
2	US$ 1,500,000	US$ 5,000,000

APPENDIX 3: Guidelines for catfish farm and catfish processing plants approval.

Objectives / scope (FDF, 2013).

These guidelines provide an overview of the certification process and construction standards as specified in the Catfish Quality Assurance and Inspection Regulations

- To specify the Food Safety and Quality criteria required to be put in place in a Seafood Processing Plant and Catfish Farm for approval.
- To ensure uniformity of application of standards.
- To assist Catfish Farmers and Catfish processors to comply with the provisions of the Sea Catfisheries (Catfish Inspection and Quality Assurance Regulations) 1995 and observe Best Aquaculture Practices (BAP) standards

Application for certification / approval

Inspection for Certificate of Catfish Farm and Catfish Processing Plants is carried out by a team of Professionals from the Federal Department of Fisheries. The team comprises Professionals from the Catfish Quality Assurance, Catfish Disease Management and Aquaculture Divisions. The responsibility for monitoring food safety quality and public health in catfish processing plants and catfish farm lies with Catfish Quality Assurance and Catfish Disease Management (FQA & FDM) Division of the Federal Department of Fisheries (FDF)

PROCESSING PLANTS / CATFISH FARM

All Processing Plants and Catfish Farm must be registered and approved by the Federal Department of Fisheries. In a registered Plant/Farm, all inspections and approvals are carried out by the FQA & FDM branch inspectors who will ensure compliance with the requirements listed in the schedules iii – vii of the Regulations and Best Aquaculture Practices. Prior to any construction or any further activities, the following procedures must be followed.

i. Intended company must send its application with the following to the Federal Department of Fisheries (FDF).
ii. The application must be addressed to The Director, Federal Department of Fisheries. Area II Garki. Abuja
iii. Application must be written with Company's letter head-paper
iv. Attach evidence of registration of company (Certificate of Incorporation)
v. Obtain guidelines for plan approval and checklist, summarizing all requirements described in these guidelines and requirements for Best Aquaculture Practice (BAP). All items on the checklist must be completed and addressed prior to submitting plans for review by the FDF inspection team. Legislative requirement for construction and operation of a catfish processing facility are in schedules iii – vii of the Catfish Inspection and Quality Assurance Regulation 1995. This regulation may be obtained from FDF.
vi. Submit copy of floor plan and specification and include the following

Information:

- full legal Company name,
- Plant/Farm Location,
- Mailing Address,
- Company representative (name, official title, telephone number)
- Site layout (attach a drawing indicating the location of the establishment on the property/ other buildings).
- Drainage around the Plant/Farm
- Road access

Plans submitted for approval for new construction or renovation of an existing facility is first reviewed by the FQA branch of the FDF. The final construction of the facility must also be approved before an approval number is issued.

GENERAL CONDITIONS RELATING TO PREMISES AND EQUIPMENT

i. To ensure compliance to schedules iii – vii of Sea Catfisheries Decree (Catfish Inspection and Quality Assurance Regulations 1995).
ii. The entire operation shall be carried out within one building or within buildings which are suitably interconnected so as to maintain high hygiene standard i.e. It must be an enclosed processing unit.

LOCATION: Potential sources of contamination from the environment and easy access needs to be considered when deciding where to locate establishments. Food processing should not be carried out in areas where the presence of potentially harmful substances would lead to an unacceptable level of such substance in food.

ESTABLISHEMENT: Establishment should be away from

- environmentally polluted areas and industrial activities which pose a serious threat of contaminating food
- areas subject to flooding unless sufficient safeguards are provided
- areas prone to infestation of pests
- areas where waste either solid or liquid cannot be removed
- it should be located where there is constant supply of potable water and light.

EQUIPMENT: Processing equipment must be constructed of approved materials such as stainless steel, aluminum or plastic. Galvanized metals, woods, mild steel enamel and bricks are not approved materials. Equipment should be located so that it:

- permits adequate maintenance and cleaning
- functions in accordance with its intended use, and
- facilitates good hygienic practices including monitoring.

DESIGN AND LAYOUT: design and layout of premises and working areas shall be such as to preclude contamination of the product. Where appropriate, the internal design and layout should permit good food hygienic practices and protection against cross contamination. Consideration must be given to a well designed facility and product flow which will help prevent any form of cross contamination from raw to finished products. To accomplish this, all facilities which process ready to eat products must allow for a separation of its equipment, working area and storage areas when handling raw and ready to eat catfish products.

RECEPTION AREA: this area is to be used for receiving and carrying out routine checks and storage of raw materials.

PROCESSING AREA: This area is intended for handling, thawing, cutting, washing, salting, draining etc. It should be constructed so as to comply with the requirements of Good Manufacturing Practice (GMP) for the design and construction of catfish processing establishment and all requirements for equipment in catfish processing establishments. The area should be constructed and furnished so that it can be maintained in a clean and hygienic state. It should be big enough to avoid overcrowding.

- Floor should be concrete and finished with a seamless waterproof coating, smooth easy to wash and disinfects.
- Walls should be smooth and painted white or light color washable paint or finished in tiles wall surfaces (floor to ceiling) must be durable impervious to water
- Tables equipment and utensils should be stainless steel, easy to wash and disinfects.
- This area should be well lit and well ventilated in order to remove odours, screened against insects, pest and rodents etc.

- Ceiling surface must be smooth, impervious and washable with no exposed pipes, joints or open support beams. The height must be adequate (ceiling height must be a minimum of 12ft or 3.65m above the tall)
- Dry wall is not acceptable as it will not tolerate damp conditions

LIGHTING: Processing plants must be well lit and safety shields should be installed on all light fixtures / bulbs throughout the processing area to prevent shattered glass from falling into food products.

WINDOWS: Windows must be high enough and within reach for cleaning. Windows should be made of non corrosive materials and screen.

DRAINS: Drains must be located appropriately in all processing areas. Slope must be adequate to ease the flow of waste water .Drains must be equipped with traps or other devices to preclude the entry of gases and vermin. Waste water should be treated before being discharged into community sewage systems or to an approved on- site disposal system or soak-away system.

WATER SUPPLY: water must be of potable quality from an approved source is disinfected / treated municipal water supply or borehole. Water supply must be adequate and sufficient for processing and cleaning purpose. Water must be tested / analyzed periodically at least twice in a year in an approved laboratory for compliance with drinking water standard.

TOILET/CLOAKROOM: Toilet rooms must not have direct access to processing area and must be sufficient for personnel use (1 toilet for nine (9) personnel is adequate). It must be located within the processing plant. Toilet walls and floors should be made of light colored and smooth easy to wash materials (preferably tiled). A floor drain should be provided in each toilet room. Toilet rooms shall be equipped with self closing doors and leg operated wash hand basin taps. Well ventilated cloak room must be provided with cupboards.

SMOKING EQUIPMENT: Smoking unit shall be located within the processing facility. The smoking unit shall be designed such that:

i. The internal temperatures can be monitored (i.e. a time/temperature measuring device should be attached)
ii. Unit is constructed with approved durable and easy to clean materials.
iii. An even distribution of heat and smoke is achieved
iv. A baffle or screen or other system is included to reduce settling of smoke particles on the product
v. Chimney is located appropriately to remove excess smoke and heat

DRY STORAGE AREA: Packaging materials shall be of a food grade and must be stored in a clean and dry room. Chemicals used for cleaning and other cleaning materials must be stored in the same room with packaging materials.

LABELING STORAGE AND PACKAGING: Labeling must be in compliance with regulations and must be approved by FDF before use. Label must include date of production, expiry date (shelf life) details of producer / processor, batch numbers, storage conditions, nutrition facts. Label should be printed directly on packaging materials and master cartons.

PRODUCTION CONTROLS (HACCP PLAN): All processing plants and Catfish Farms must be HACCP based. Therefore, HACCP plan (i.e. document development) must be submitted to Federal Department of Fisheries before approval can be granted.



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