REPUBLIC OF THE GAMBIA

The Republic of The Gambia

Country Report

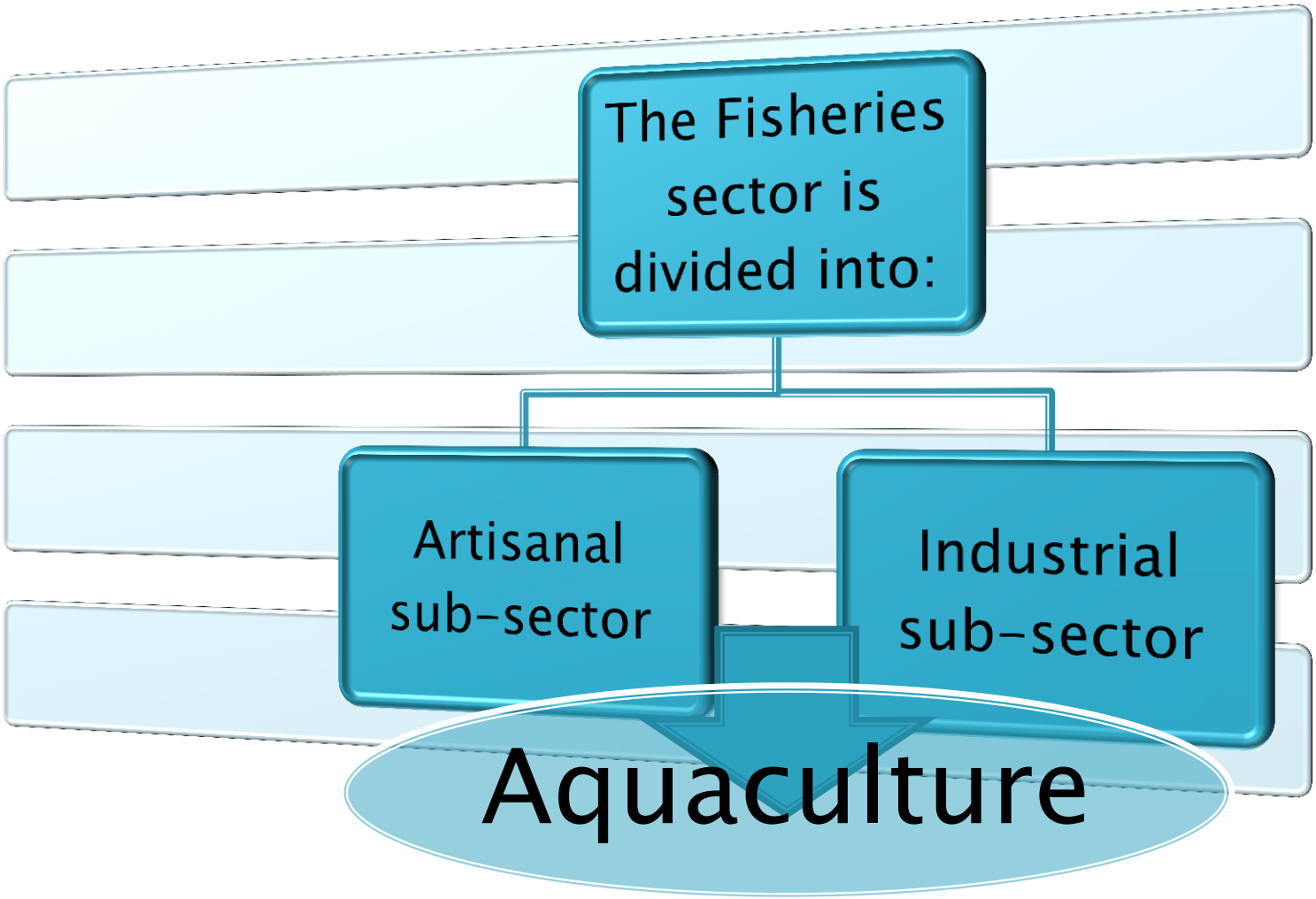
Country Overview

The Gambia is the smallest country on the African mainland. It stretches 450 km along the Gambia River. Its 11,285 sq. km area is surrounded by Senegal, except for a 60 km Atlantic Ocean front. Although small in size, The Gambia harbors a wealth of land, coastal, marine and wetland habitats and species of local, national, regional and global significance, making it an attractive tourist destination. Due to its unique geographic location it is also a hub for trade in the region.

The country has a population of 1.8 million, with a fairly high average rate of growth of 2.8% per year over the last decade. Most of the population (57%) is concentrated around urban and peri-urban centers. The main languages are English, Mandinka, Wolof, Jola and Fula, and 90% of Gambians are Muslim.

Artisanal fish Landing Site in The Gambia

INTRODUCTION



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- The fisheries sector of the Gambia has enormous potential to positively contribute to national socioeconomic development.
- Contribution to GDP is **about 12%**
- Realization of the full potential of the sector will:
  - Ensure food self-sufficiency
  - Generation of employment
  - Improved nutrition
  - Increased revenue & Foreign exchange

ARTISANAL FISHERIES SUB-SECTOR

- Provides direct and indirect employment for **over 6,000** people in the production side.
- An estimated of **over 30,000 people (**boat building, fish handing, processing, transportation and marketing)
- It is estimated that **about 200,000 people** in the Gambia depend on artisanal fisheries for their livelihoods.
- An estimated **70% of the artisanal catches** are sold in the domestic market (either fresh, smoked of dried) and about 30% is sold to fish processing establishment for export.

Estimated Artisanal fish Landings (MT)

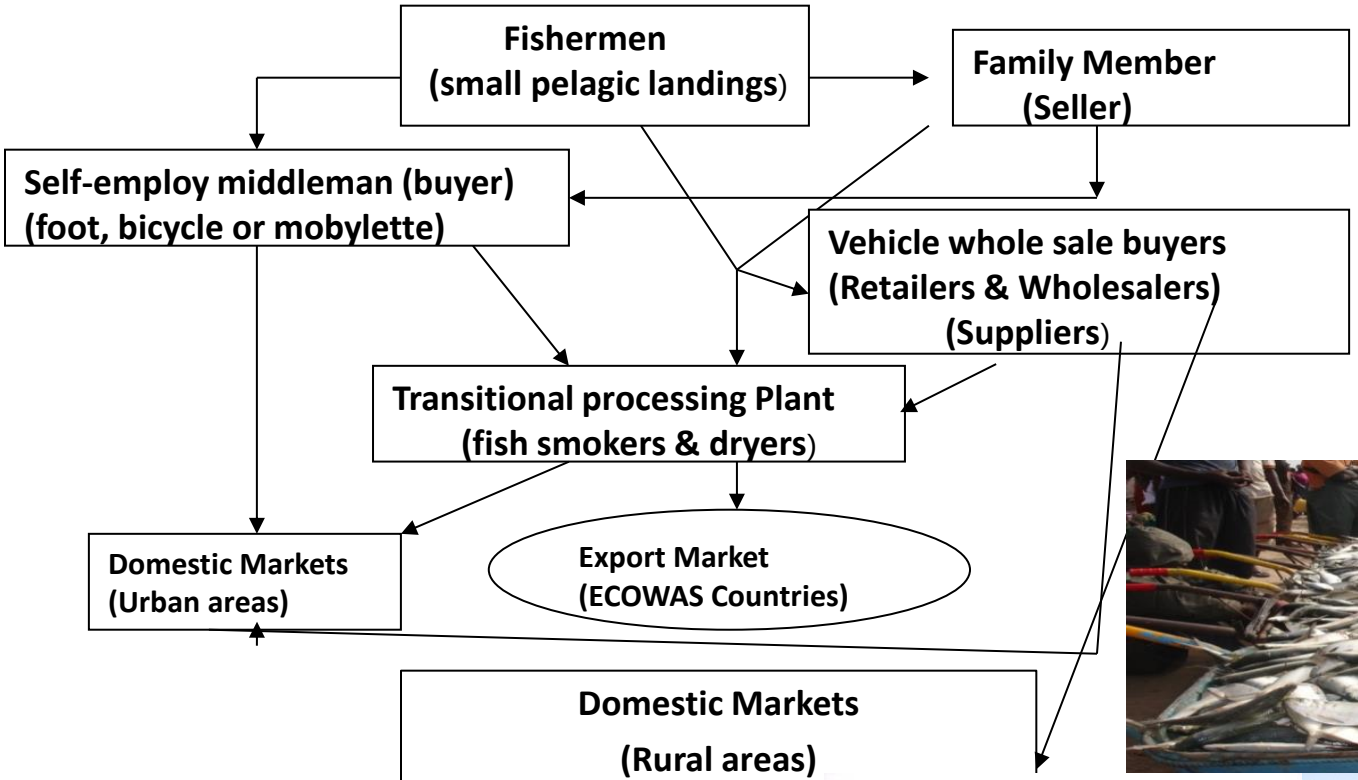
Sector	2009	2010	2011	2012
Artisanal	34,365	29,316	30,168	35,807

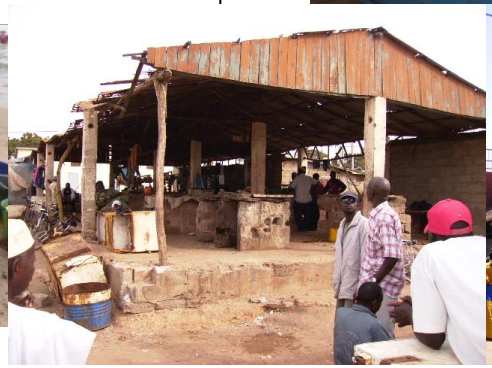
Role of Women in the Artisanal Fisheries sub-Sector



- un-loading of fish from fishing canoes,
- marketing of the catch,
- Fish processing (smoked & dried) and fish products marketing,
- Oyster harvesters.

Artisanal Fish Marketing & Distribution Chain





Local Artisanal Fish Market and an Ice Plant at Tanji beach

Cont'd.
Fish marketing at landing site

Chain Cont'd…
BANA-BANAS

Chain Cont'd…….

RETAILERS distribute fish to pre-urban markets, processing plants, local hotels, restaurants and inland markets

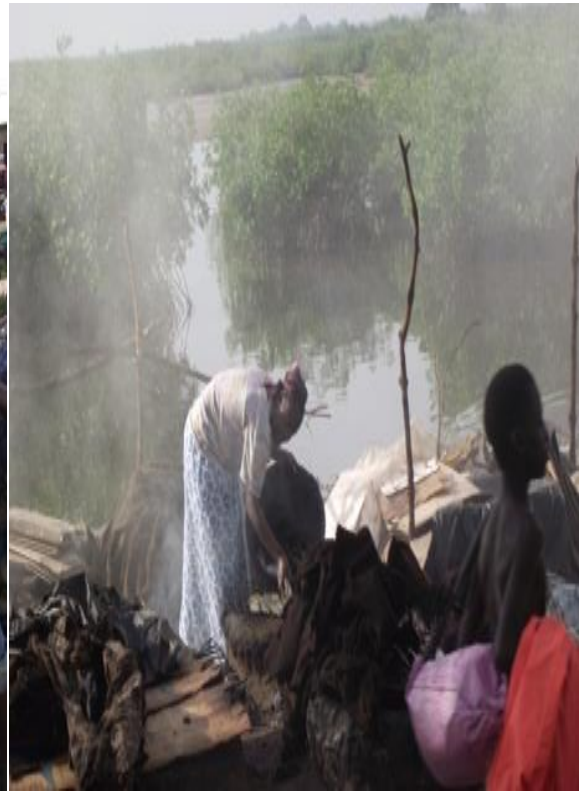


Chain Cont'd……

- **WHOLESALE TRADERS** distribute fish to central marketing points using insulated trucks with ice for fresh fish and open trucks for processed products.

Chain Cont'd…..

- **FISH PROCESSORS** buy directly from artisanal fishermen for smoking or drying.



Marketing Chain Cont'd …

Export Markets

(smoked, dried, frozen and fresh fish exported)

ECOWAS States

- Ghana, Cameroon, Senegal
- Benin, Mali, Guinea Conakry, Burkina Fasso and Ivory Coast.

EU Countries and U.S.A

- Frozen Sole Fish
- Frozen Octopus, Cephalopods and Crustaceans
- Smoked, dried fish and fishery products

.

Estimated Exports of Fish & Fishery Products

Year	2009	2010	2011	2012
Quantity (MT)	445	504	364	123
Value (million Dalasis)	11.6	12.7	7.7	3.5

OPPORTUNITIES

RESOURCE BASE

- Wild fisheries resources
  - Over 500 marine fish species classed as demersals and pelagics.

- Aquaculture potentials
  - Huge potentials for oyster harvesting oyster and
  - cockles aquaculture in the marine and
  - brackish waters of the river and its estuarine areas.

CHALLENGES

Physical Challenges

- Inadequate facilities for proper fish handling, processing and storage,
- Insufficient fish distribution and marketing centers
- Inadequate transport facilities,
- Inadequate monitoring, control and surveillance of territorial waters and beyond,
- Insufficient feeder roads for easy access to inland fish landing sites,

SOCIAL CHALLENGES

- Inadequate empowerment of Women (fish processors, vendors and shell fish havesters/processors)
- Inadequate participation of Gambians
- Inadequate enforcement of regulations to prevent and eliminate harmful fishing practices

FINANCIAL CHALLENGES

- Lack of adequate access to micro-finance facilities for artisanal operators.
- High interest rates on loans from commercial banks.
- Lack of access to working capital and long term lending for artisanal operators.

TECHNICAL CHALLENGES

- Inadequate repair and maintenance services for fishing crafts and outboard engines
- High cost of fuel and energy
- Lack of adequate knowledge on the biology and the MSY of the marine and riverine fisheries resources

INSTITUTIONAL CHALLENGES

- Weak mechanism for inter-institutional coordination, and inadequate implementation of policies.
- Inadequate human resources for research, surveillance, fish quality control and hygiene services, management, aquaculture and inland fisheries development.
- Absence of a reliable monitoring and evaluation system on Artisanal Community Fisheries Centers.
- Inadequate financial resources to conduct MCS within the artisanal fisheries sub-sector.
- Professional Organizations such as NAAFO, TRY Women Oysters and GAMFIDA have inadequate organizational and administrative capacities.

RECOMMENDATIONS AND WAY FORWARD

- Strengthen market information network to provide data on supply and demand on fish and fishery products including consumption pattern within the country.
- Create a database on production, volume of trade and consumer preferences on fish and fishery products within country.
- Develop a methodology on standards, quality assurance and certification on fish and fishery products within the artisanal fisheries sub-sector.
- Allow artisanal fisheries economic operators to meet food safety requirements.
- Organize training programmes to improve the skills of artisanal fisheries economic operators on trade and food safety.

Cont'd…..

- Development of export trade in fishery products and value adding would assist the Government in diversifying the economy and shifting reliance on agricultural exports.

- Open access nature of the artisanal fisheries sub-sector requires proactive and dynamic management measures to curtail further overexploitation of the resources.

- Establishment of an active national artisanal fishing fleet to contribute to national social and economic development in addressing poverty and ensuring adequate household food security within fishing communities.

Industrial Fisheries Sub-sector of The Gambia

This Sub-sector Comprises:

- licensed industrial fishing vessels local or foreign vessels,

•fish processing factories (getting raw materials mainly from artisanal fisheries)

- **The sub-sector exports mainly high value demersal fish that are mainly not be consumed locally**

Current Status of Industrial Fisheries

- There are about 11 local fishing companies involved in licensing of fishing vessels
- About 47 industrial fishing vessels were licensed and fishing in Gambian waters in 2013
- 12 vessels were Gambian registered vessels and the rest foreign
- Many of the fishing vessels operating in The Gambian waters come in through fishing access agreements (reciprocal), such as the Senegal-Gambia Maritime agreement

Cont'd.....

- The greater proportion of the catch of industrial vessels is landed in foreign ports, although there is now the new fisheries jetty ,
- A new fish landing jetty is now available through implementation of the just phased out Gambia-ADB-BADEA funded GAFDP and partly addressed the long standing constraint of lack of a fisheries port,
- Jetty landing facilities can be used by both industrial vessels and artisanal fishing canoes,
- Fishing vessels provide employment for several observers and deckhands with 20% of all foreign vessels crew being Gambian,

Cont'd……

- 11 companies have made investments in on-shore processing factories,
- 5 companies approved fish processing establishments (factories) for export,
- 6 other establishments exist that are not approved
- The fish processing establishments provide employment for many youth, particularly women

Cont'd.

- Increased cooperation at sub-regional level on fisheries management (MCS patrols),
- Reduced poaching due to joint surveillance patrols of fisheries waters,
- Industrial fish processing establishments export between 2,000 and 5,000 tons of fishery products valued between 40 and 60 million Dalasi,
- Exports are to various destinations including to the EU, USA, South America, Asian countries and to African countries

•The EU is the main export destination for fishery products exports but it is the most stringent importer

Cont'd.

- However, there are numerous challenges in meeting international standards for export of fishery products esp. to the EU,

- Although there is no tax imposed on the exportation of fishery products, substantial revenue is generated through export processing fees through customs formalities

Constraints

- Limited number of Gambian owned and locally registered industrial fishing vessels to make maximum use of the resources,
- Continued landing of industrial catches in foreign ports,
- Inadequate facilities at the(now available)New Fisheries Jetty including cold availability of dry docking facilities, fish unloading equipment, ice manufacturing plants, cold storage facilities among others minimize use of the jetty,
- Inadequate supply of raw materials fish supplies for processing

Cont'd.

- High cost of energy and fuels,
- Illegal exportation of fishery products through unofficial channels by unscrupulous people,
- Limited manpower and low level of technical knowhow in fish processing establishments to meet sanitary and quality requirements,
- Inadequate manpower and technical capacity of the competent body (Fisheries Department) to undertake official controls of fishery products

Cont'd.

- Weak MCS and surveillance patrols of fisheries waters for fisheries management control,

- Technical problems with operation of available VMS,

Cont'd.

- Inadequate budgetary allocation for the official control of fishery products,
- Lack of supporting laboratories with the capacity to undertake official testing of fishery products as food commodities,
- Poor and unhygienic fish landing sites with inadequate handling facilities and for adequate official controls,

Cont'd….

- Availability of agricultural by-products that can be compounded into fish feed (Rice bran Groundnut cake, fish meal etc)
- Availability of sheltered areas for oyster culture (e g. Coastal lagoons, estuary)
- Availability of extensive market for aquaculture products
  - local, Regional/Sub regional, International

WAY FORWARD

- Inclusion of fisheries MCS personnel in surveillance patrols with the National Navy
- Provision of Ice manufacturing, cold storage and landing and handling equipment to support the fisheries jetty
- Support to the FHQCL (laboratory) towards accreditation

•Improvement of hygiene conditions of fish landing sites

Cont'd.

- Registration of artisanal fishing vessels for effective control
- Small patrol boats for near shore surveillance by fisheries and NASCOM
- Support to and collaboration with NASCOM on the management of fisheries resources

•Provision of improved infrastructure and fish landing and handling facilities at fish landing sites

Cont'd.

- Establishment of a vessel database,

- Review of the legal system (Fisheries Act and Regulations) to take into account new developments including, IUU issues, use of VMS and printouts as court evidence, etc…

STATUS OF AQUACULTURE DEVELOPMENT IN THE GAMBIA

- AQUACULTURE as a component of Culture Fisheries as apposed to Capture Fisheries involves....:

  ''The controlled breeding and raising of fish, shell fish or aquatic plants for by people for food, industry or recreation"

- Aquaculture is simply fish farming

CULTURE FISHERIES

- Unlike capture fisheries, production here is under control and highly predictable.

- This form of production can be used to estimate revenue in a fairly distant future with high degree of accuracy,

Cont'd…

Year	1990	1992	1994	1995	2004
Culture	**12.39**	**14.42**	**18.00**	**21.00**	**45.50**
Capture	97.85	84.90	91.58	91.00	60.50
World Total	110.24	99.35	109.50	112.00	106.0

Cont'd….

Aquaculture continues to grow more rapidly than all other animal food-producing sectors, with a global average annual growth rate of 8.8 percent per year since 1970, compared with only 1.2 percent for capture fisheries and 2.8 percent for terrestrial farmed meat production systems.

Cont'd…..

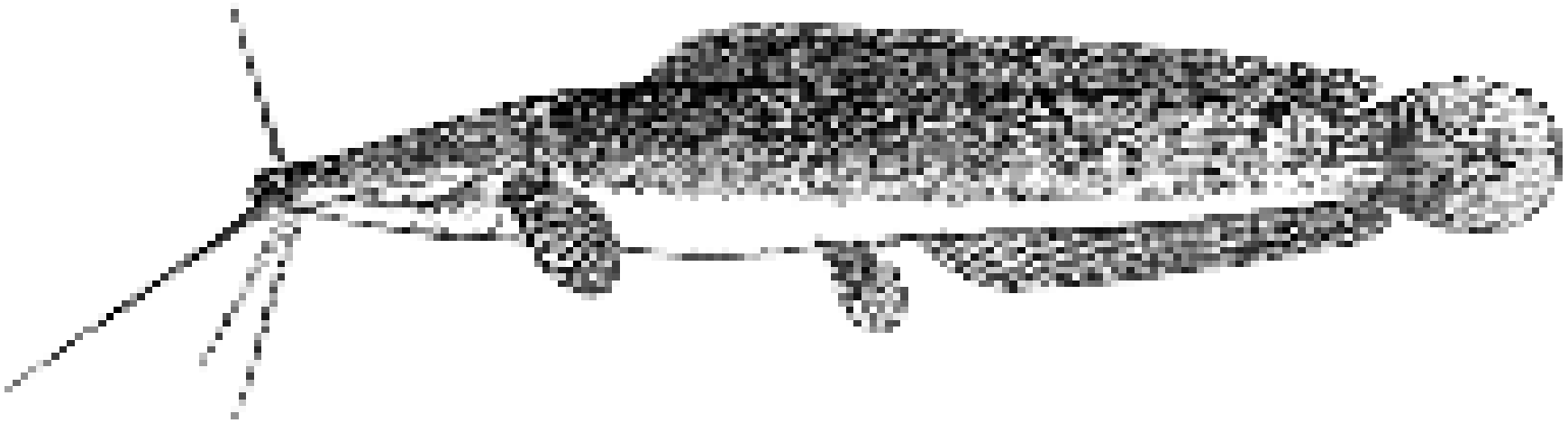
- Aquaculture started in The Gambia way back in 1979

- with only two small and poorly managed fish ponds in Kata and Bansang in CRR North and South respectively

- These were for the cultivation of Tilapia (Wass), Cat fish (Konokono) and Heterrotis (Fantang)

SOME OF THE SPECIES INCLUDE: TILAPIA

konokono



Fantang

FISH HARVEST IN PROGRESS IN SAPU

FISH POND LAYOUT IN SAPU

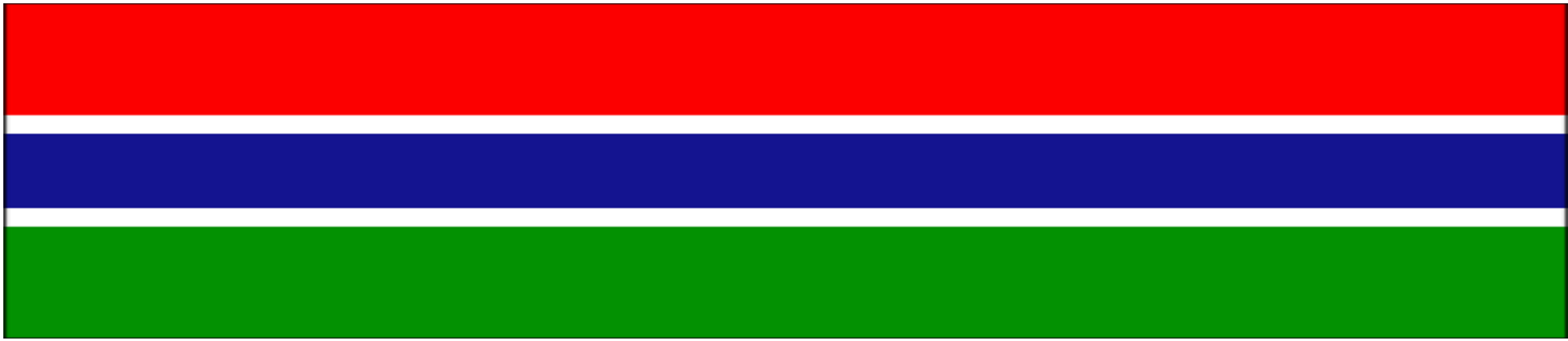
TREND IN AQUACULTURE GROWTH

The rate of development of Aquaculture in The Gambia is similar to the global rate.

It grew from a single pond in 1979 to over 60 ponds in 2014 with production raising from 50 kg. in 1979 to over 3,000 kg in 2014

This Rate of Aquaculture Development was Stimulated By The Following:

- Abundant Water resources (both Surface and under ground)
- The flood plains
- The unique tidal configuration of the Gambia river



THE STATUS OF AQUACULTURE DEVELOPMENTIN THE GAMBIA

INTERVENTIONS IN AQUACULTURE

- Since late 1970's, freshwater aquaculture trials were carried out.
- The Catholic Relief Services (CRS), the US Peace Corps and the Department of Fisheries did the culture trials.
- Tilapia and catfish were cultured in small family fishponds by farmers in the rice fields in the fresh water zone.
- IDRC – funded Oyster research (1986-1991)

INTERVENTIONS IN AQUACULTURE

- ScanGambia Shrimp Ltd was established in 1986.
- Three species Polyculture was carried out (1995)
- (*Tilapia nilotica, Heterotis niloticus, and Clarias gariepinus*)
- West African Aquaculture company which succeeded Scan-Gambia Shrimp Ltd was established in 2000.
- Taiwan Technical Mission aquaculture.
- FAO TCP aquaculture lunched in 2009.

INTERVENTIONS IN AQUACULTURE

- The president polyculture farm early 2000.
- Baringoto and Ndenbarn farms are other small aquaculture farms involved in culturing tilapia.

Shrimp farming

- In 1986, the government approved the establishment of a multimillion shrimp company.
- The Scandinavian Company called Scan-Gambia Shrimp Limited established shrimp hatchery complex and ponds for grow out.
- The company raised *Penaeus monodon* from lava to maturity . The adult brood stock were imported from Malaysia and quarantined before stocking into maturation tanks

Shrimp farming cont.

- After about 5 years of production, the company was liquidated and was succeeded by another company-West African Aquaculture Ltd. (WAA)

- WAA company is as well engaged primarily in the production of *P. monodon* (Black Tiger Prawn). Escapees into the wild.
- The water is supplied directly from the Atlantic Ocean through filters for use in maturation and spawning of brood stock.

Shrimp farming cont.

- Rearing of nauplii to post larvae were done at the hatchery using cultured algae (*Chaetoceros and Tetraselmis*) and Artemia
- The last stage post larvae are transported to the grow-out farm
- Use of antibiotic was strictly discouraged by health authorities .
- The grow-out consist of 50 ponds on the inter tidal zone.
- The company processed and packed according to specific specifications.

POTENTIALS FOR AQUACULTURE DEVELOPMENT IN THE GAMBIA

- The Gambia is blessed with three types of waters (marine, fresh and brackish waters) and these can support a wide range of cultivation.
- Gambia has a good location so exportation by plane, ship or lorry is possible.
- Aquaculture in the Gambia is very promising because there are ready markets (local, regional and international) for the produce.

POTENTIALS FOR AQUACULTURE DEVELOPMENT IN THE GAMBIA

- Availability of relatively pollution -free aquatic environment.
- High tidal amplitude (> 1 metre)

- Availability of cheap labour in the country.

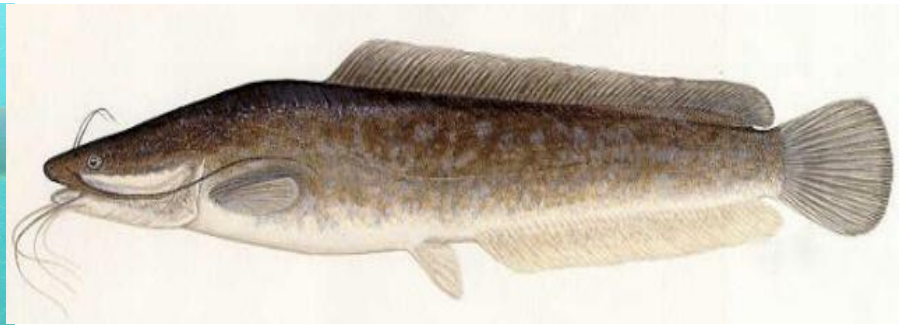
- With the present rate of Tourism development-

  Recreational aquaculture is possible.

POTENTIALS FOR AQUACULTURE DEVELOPMENT IN GAMBIA

Availability of Culturable fish species

Oreochromis niloticus



Clarias gariepinusn

Crassostrea tulipa

Availability of Culturable fish species

Heterotis niloticus

Gymnarchus niloticus

Penaeus monodon

Tilapia guineensis)

Availability of Agricultural by-products

- Most of the Gambians are farmers, so preparation of low cost fish feed from agric by-products is easy.
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FISH FEED FROM AGRIC BY PRODUCT

blood meal

fish meal

rice ran

brewery waste

cotton seed cake

g/nut cake

CHALLENGES OF AQUACULTURE DEVELOPMENT IN THE GAMBIA

- Lack of local personnel with technical competence to manage aquaculture farmers.
- Inadequate budgetary provisions limit capacity of the Aquaculture Coordinating Unit to carry out more research and provide solutions and find out new findings.
- Access to good quality seeds require money.
- Lack of fish feed making plants for commercial production

Challenges of aquaculture development in the Gambia cont.

- High cost involved in pond construction.
- Prevailing high interest rates at the commercial banks.
- High cost of fuel and electricity to run the machinery.
- Lack of aquaculture research stations.

THANK YOU