

OPPORTUNITIES AND CONSTRAINTS FOR AQUACULTURE IN WEST AFRICA

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**TA PESCAO/EU funded programme for ECOWAS +Mauritania
“Improved Regional Fisheries in western Africa”**



INTRODUCTION

- Fish is one of **the cheapest sources of animal protein** and the most widely accepted animal product in Africa. Unlike, it is heavily consumed across the **various religious, ethnic and social lines** that crisscross the African continent.
- Demand for fish products will continue to increase and commercial fishing vessels supplying international markets in Asia and Europe will see higher demand
- Growing awareness for healthy meats, fish is gradually gaining the upper hand in many African kitchens and dishes.
- Pressure is generating a need for seafood dealers to diversify their fish sources, including **turning to aquaculture**

GLOBAL FISH PRODUCTION

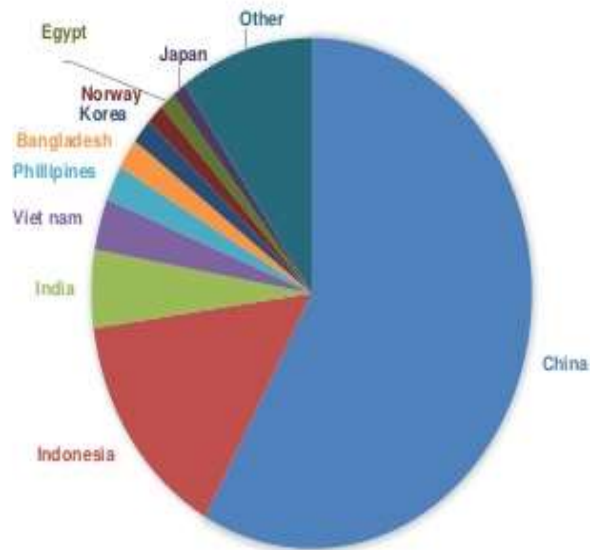
- **2016** Global fish production was **171 million tones**, **110.2 million tons**, first-sale value estimated at **USD 243.5 billion**.
- Aquaculture representing **47%** of the total (from 25.7% in 2000) and **53 %** if non-food uses
- Global aquaculture production (including aquatic plants) was Regional level, aquaculture accounted for **17 to 18 %** of total fish production in Africa.
- World's aquaculture mostly in Asia, of which 60% and the top 6 countries – all in Asia – produce 86%
- Rapid growth rate in aquaculture production over the last 25 years in Asian countries **mirrored** in the production of freshwater fish in sub-Saharan Africa.
- SSA 550 000 tons in 2014, less than 1% of world production, composed almost of freshwater fish – mostly **catfish, Tilapia**.

MAIN AQUACULTURE PRODUCERS

Global aquaculture production

WorldFi

2015 SHARE OF GLOBAL AQUACULTURE PRODUCTION
TOTAL = 106 MILLION T/YR, EGYPT = 1.17 MILLION T/YR



GENERAL BACKGROUND

4 phases of AQ development in SSA

- 1950-1970: Popularisation
- 1970-1995: Assistance
- 1995-2005: Facilitation
- 2005->: Business approach
 - Led by the private sector

PUBLIC
subsidies



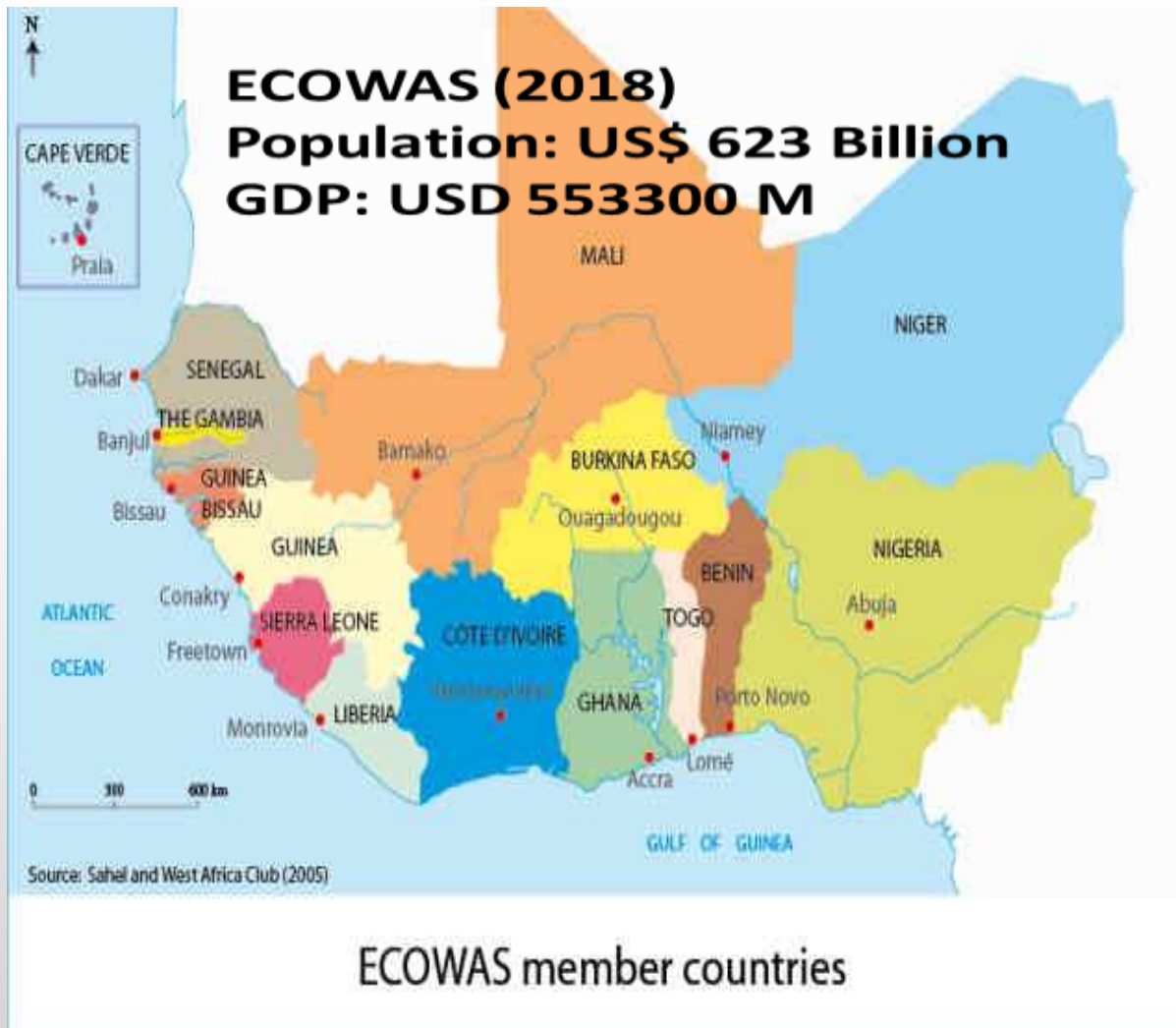
PRIVATE
investments



AQUACULTURE FOOD FISH PRODUCTION (000'tons; % of world total) 1995 2016

Region/County	1995	2000	2005	2010	2015	2016
AFRICA	110	400	646	1 286	1 772	1 982
	0.5%	1.2%	1.5%	2.2%	2.3%	2.5%
EGYPT	72	340	540	920	1 175	1 371
	0.3%	1.1%	1.2%	1.6%	1.5%	1.7%
NIGERIA	17	26	56	201	317	307
	0.1%	0.1%	0.1%	0.3%	0.4%	0.4%
World Production	24 383	32 418	44 298	58 962	76 054	80 031

MAP OF ECOWAS



- West African population estimated at **380 million** in 2018.
- > 50% population consumes fish products on a daily basis (e.g. Benin, Gambia, Ghana, Mali, Mauritania, and Senegal) it accounts for up to 3-5% of total GDP.
- 5 million fishers, fish processors and fish traders in the region
- Decline of per capita consumption due to: (i) **poor fishery management** (ii) **poor infrastructure** limiting access, (iii) lower **incomes**, (iv) **IUU fishing**

Opportunities for aquaculture in ECOWAS

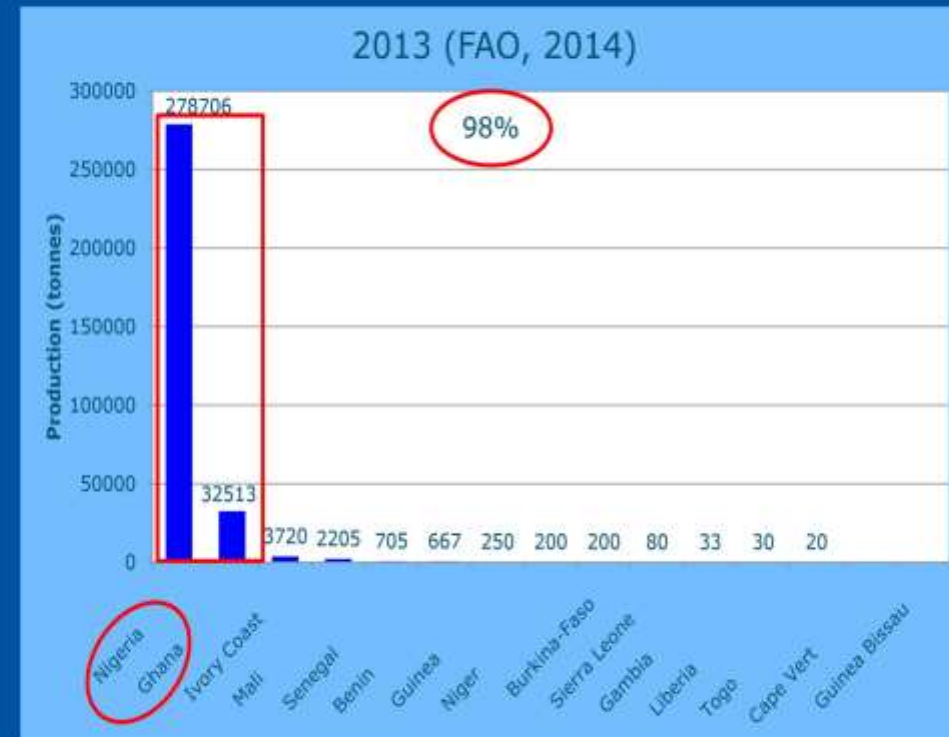
- ECOWAS some world's largest reservoirs (**Senegal**, Niger, Lake Chad, Volta, Mono, Bandama Sassandra) with combined storage capacity of 246 km³ of water, including the world's largest man-made lake by area, **Lake Volta, with 8,502 km²**.
- The **market opportunities** a major argument to support the West African investment in aquaculture.
- ECOWAS, **GDP of US\$ 623 billion** is not only an opportunity for itself, but a strategic location to harbor export platforms to other African countries and beyond.
- Healthy demographic trends ensuring that population will more than double towards 2050 from the current **380 million** (2018).
- Key ECOWAS national capitals with key market access opportunities made possible by the free trade-based EPA ECOWAS/EU. Europe is roughly 5 hours
- **Nigeria** and **Ghana** are the West African [region's leading producers](#)

OPPORTUNITIES INVESTING IN ECOWAS

Most ECOWAS countries embarked on **comprehensive pro-business reforms designed** to stimulate and safeguard foreign investments.

A closer look at political **risk assessments & the WB Ease of Doing Business Rankings** will reveal that many **ECOWAS countries are as well as or even better** ranked than traditional emerging economies which consolidated investment destinations (Brazil, China and other Latin American and Asian countries).

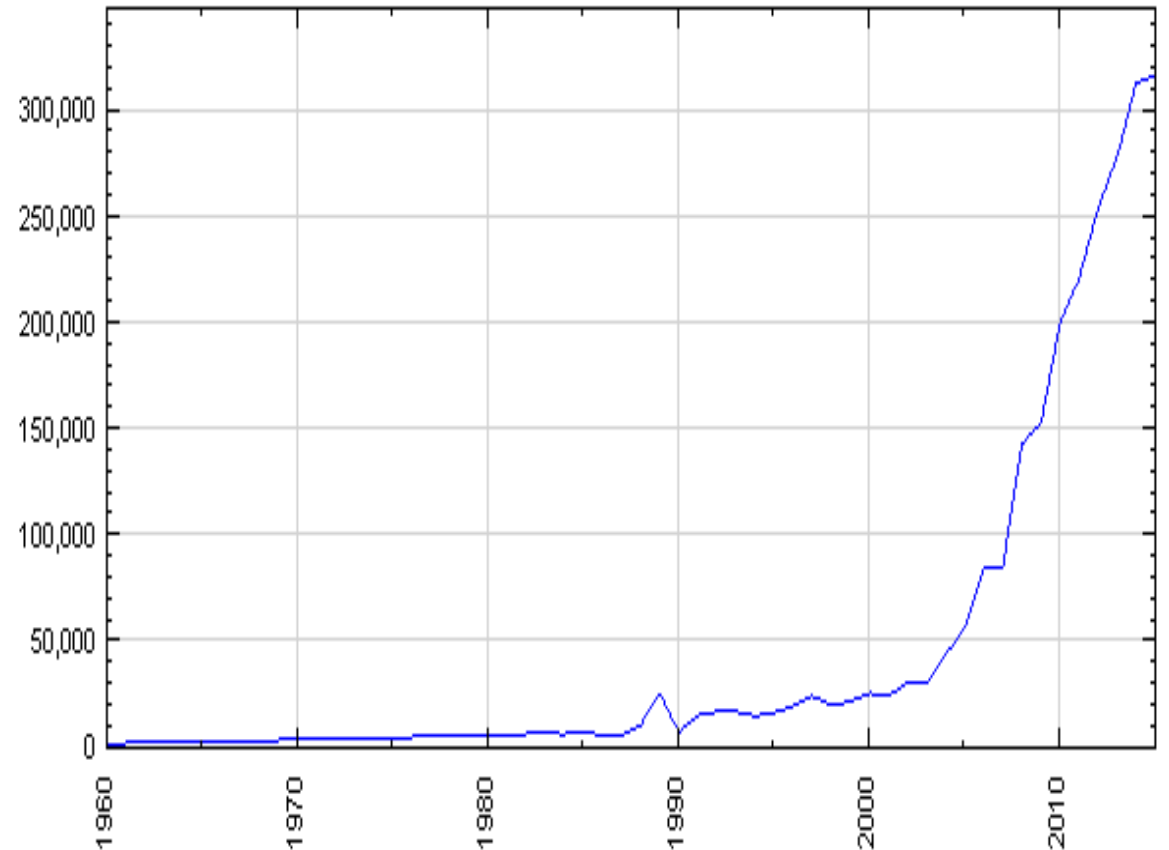
Aquaculture Production in West Africa



AQUACULTURE IN NIGERIA

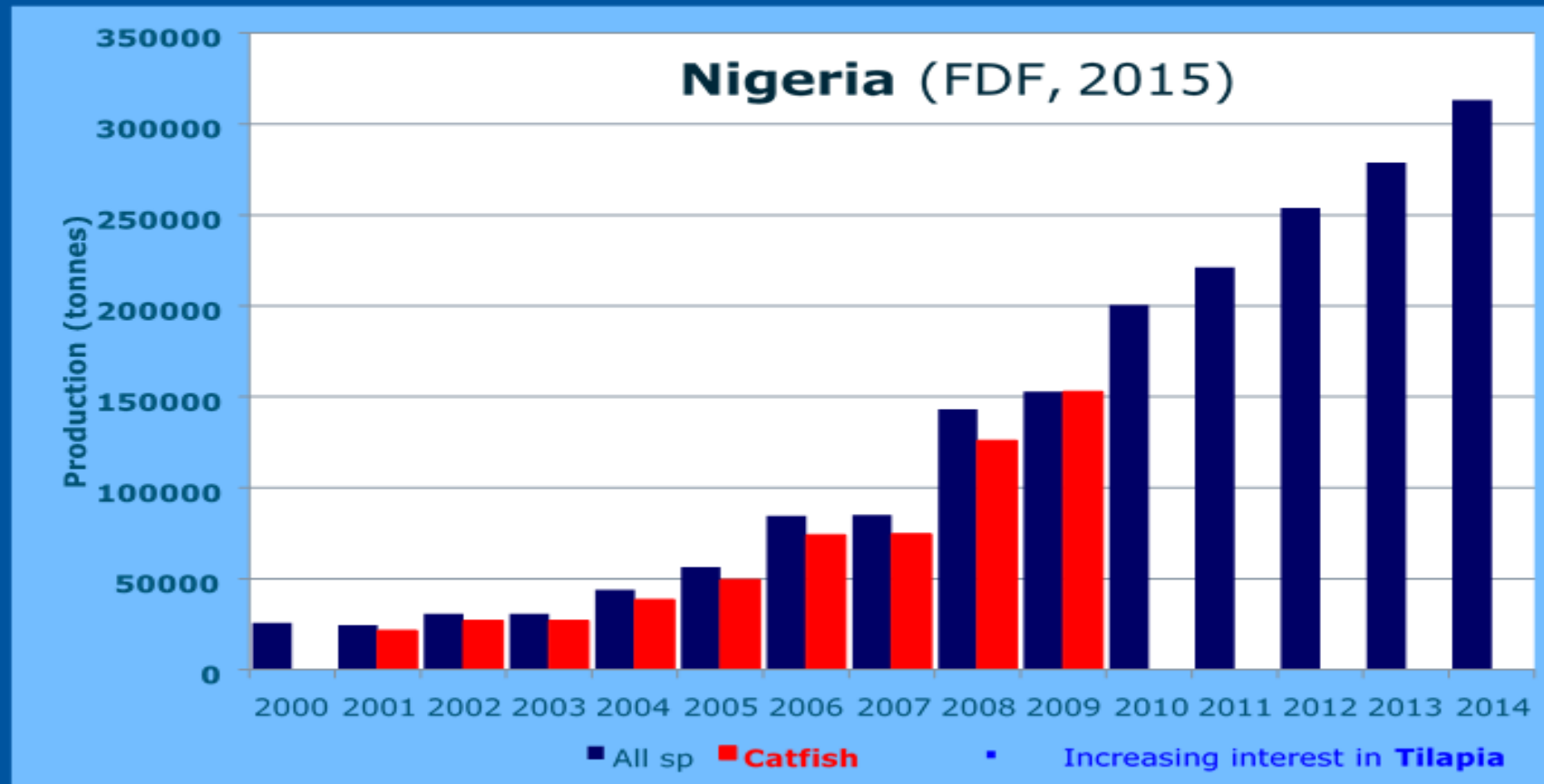
- Aquaculture is a **growing industry**, expected to continue to meet up with a **large deficit > 1 million tons**).
- Aquaculture industry **restricted to inland freshwater** aquaculture, despite abundant marine water resources,
- Only a few species such as **Clarias, tilapia** and **carps** are being cultured

Nigeria - Aquaculture production (metric tons)



Aquaculture Production in Nigeria

- Private sector led development



Comparison of African Catfish production between Nigeria and Malaysia

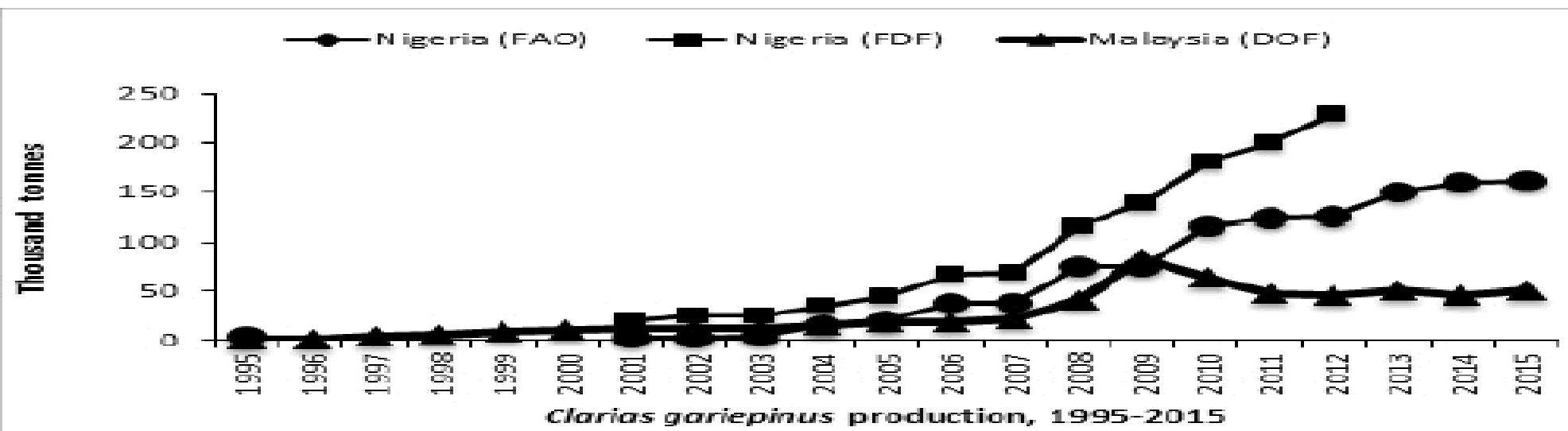


Figure 8: Comparison of African catfish production between Malaysia and Nigeria in the last two decades. Data obtained from Malaysia, Department of Fisheries (DOF), Food and Agricultural organization statistics (FAO) and Federal Department of Fisheries, Nigeria (FDF).

CAGE CULTURE IN NIGERIA



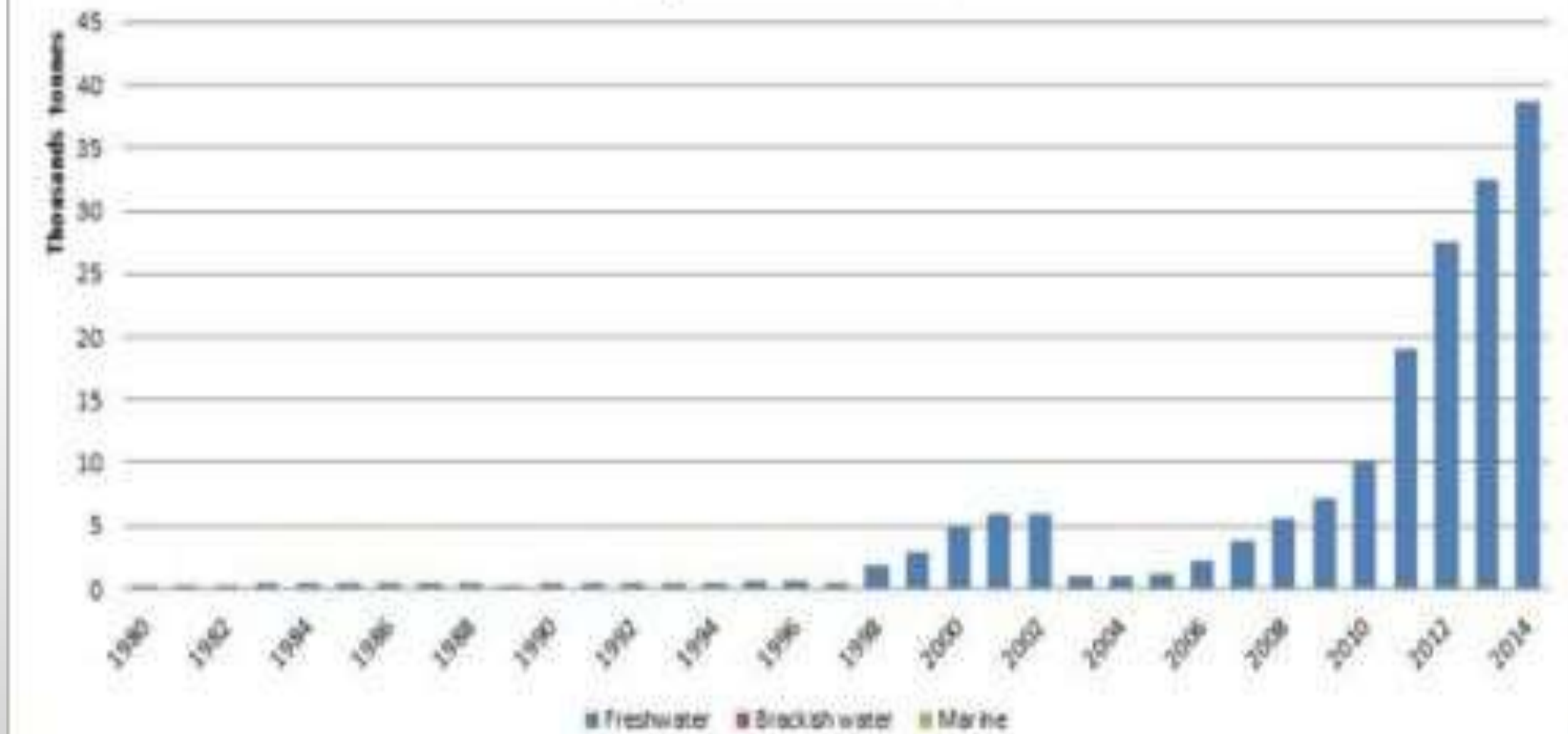
FARMED CATFISH IN CIMENT PONDS



AQUACULTURE IN GHANA

- Ghana is **imbued** with enormous potential for both **freshwater and brackish**.
- Ghana **abounds in water bodies**, favorable **climate, conducive** geographic relief and enterprising human capital, all of which **enable fish farming** nationwide.
- Aquaculture **practiced in all 10 regions**, especially in the **southern and central belts**. Main fish species farmed: Nile tilapia (*Oreochromis niloticus*) and African catfish (*Clarias gariepinus*).
- Aquaculture is **thriving and speedily been embraced** as a major sustainable economic activity by the government, corporate bodies and individuals in Ghana.

Aquaculture Production



Cages culture in Ghana



CONSTRAINTS TO AQUACULTURE DEVELOPMENT IN ECOWAS

- **Institutional**
- **Socio cultural**
- **inadequate supply +of fish fingerlings,**
- **high cost** of fish pond establishment
- **lack of awareness of available innovations**
- **cost of fish feed,**
- **proper management,** and the
- **quality** of your market-ready fish.

- **Interesting resources for tilapia and cat fish farming in Africa**
- [Practical Manual for the Commercial Production of the African Catfish:](#)
- Interestingly, in South Africa, one company is doing the unthinkable. AgriProtein makes fish feed from maggots harvested from its fly farms



THANK YOU FOR YOUR KIND ATTENTION