THE SUCCESSFUL EXPERIENCE OF TILAPIA FARMING IN GHANA

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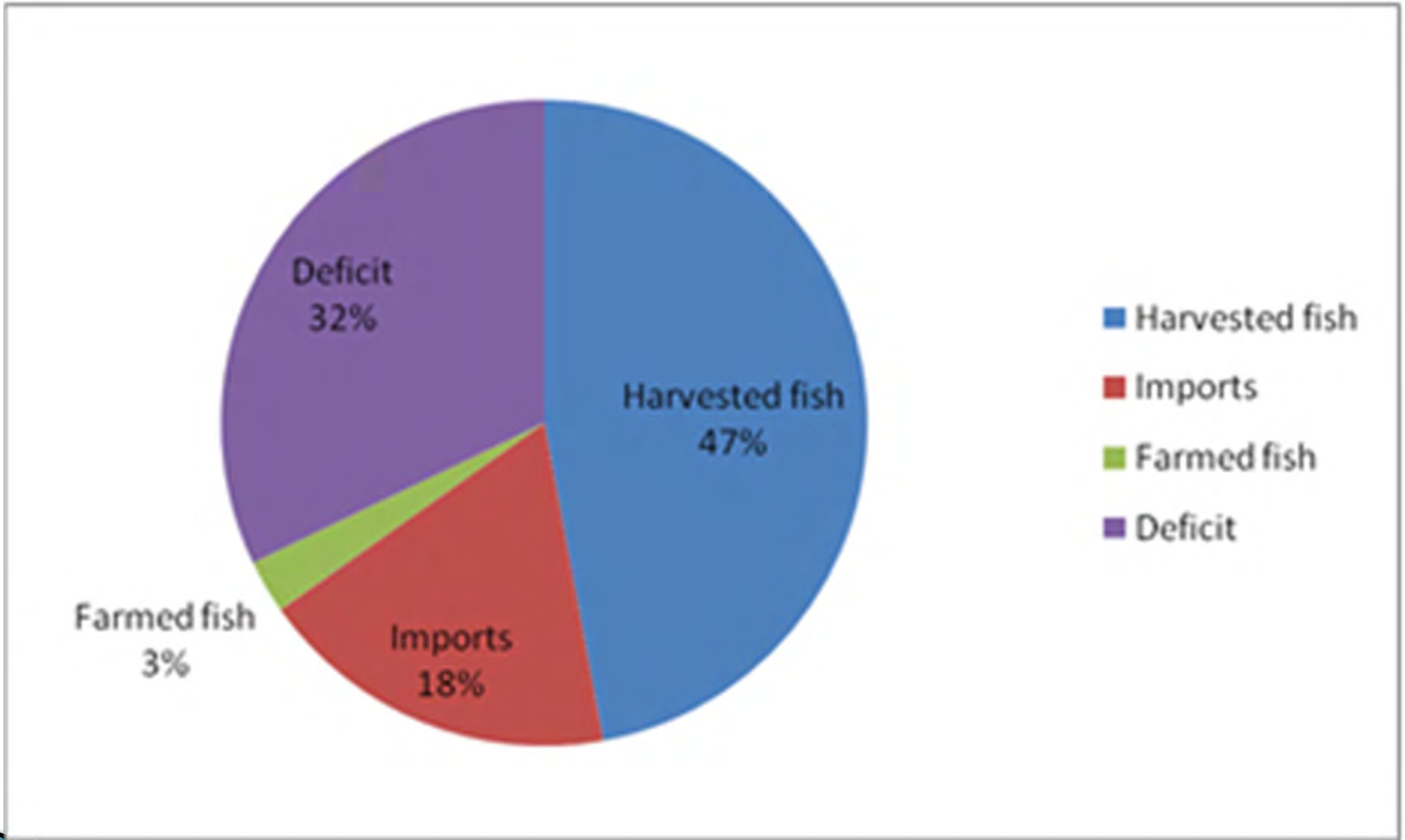
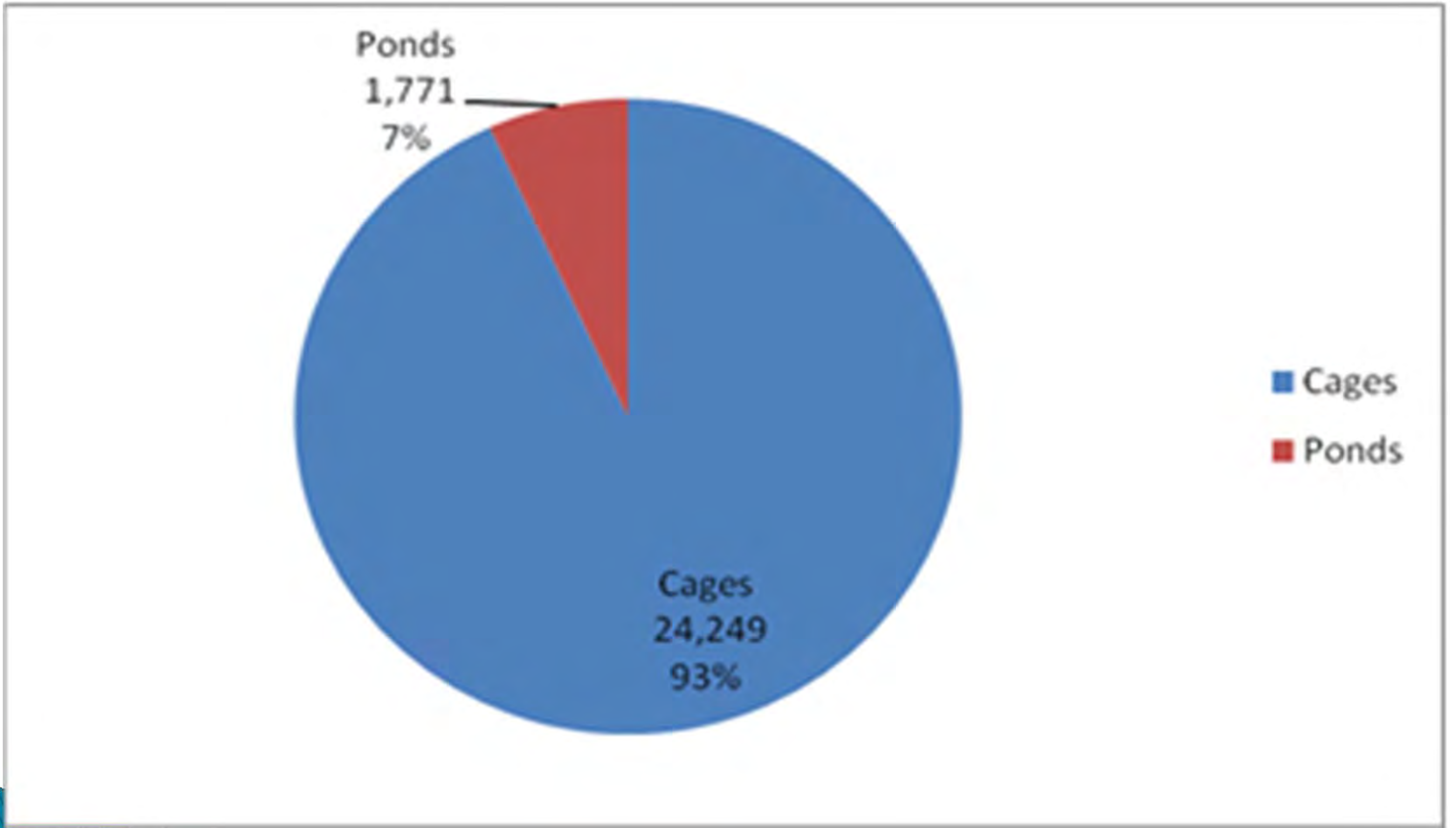
Introduction

- Ghana is a fish eating nation with fish estimated to constitute about 60% of animal protein intake and with per capita consumption at 26kg/yr.
- Was over 40kg/per capita/yr in the 1970s
- Capture fish production on the decline since 2000

- Annual fish requirement for 2012 was 968,000 MT;
- Fish harvests was total 455,700 MT from marine and inland fisheries leaving over 500,000 MT deficit
- 175,341 MT of was imported and
- Fish farming contributed 26,000 MT
- Fish Deficit of 32%


Deficit
32%
Harvested fish
47%
Imports
18%
Farmed fish
3%
Harvested fish
Imports
Farmed fish
Deficit

93% of fish farmed is by floating cages , 7% by ponds



- Over 80% of production is *Oreochromis niloticus*,

- All-males, by sex-reversal in 125 m^3 cages, raising 10,000 fish to +/- 300g in about five months).

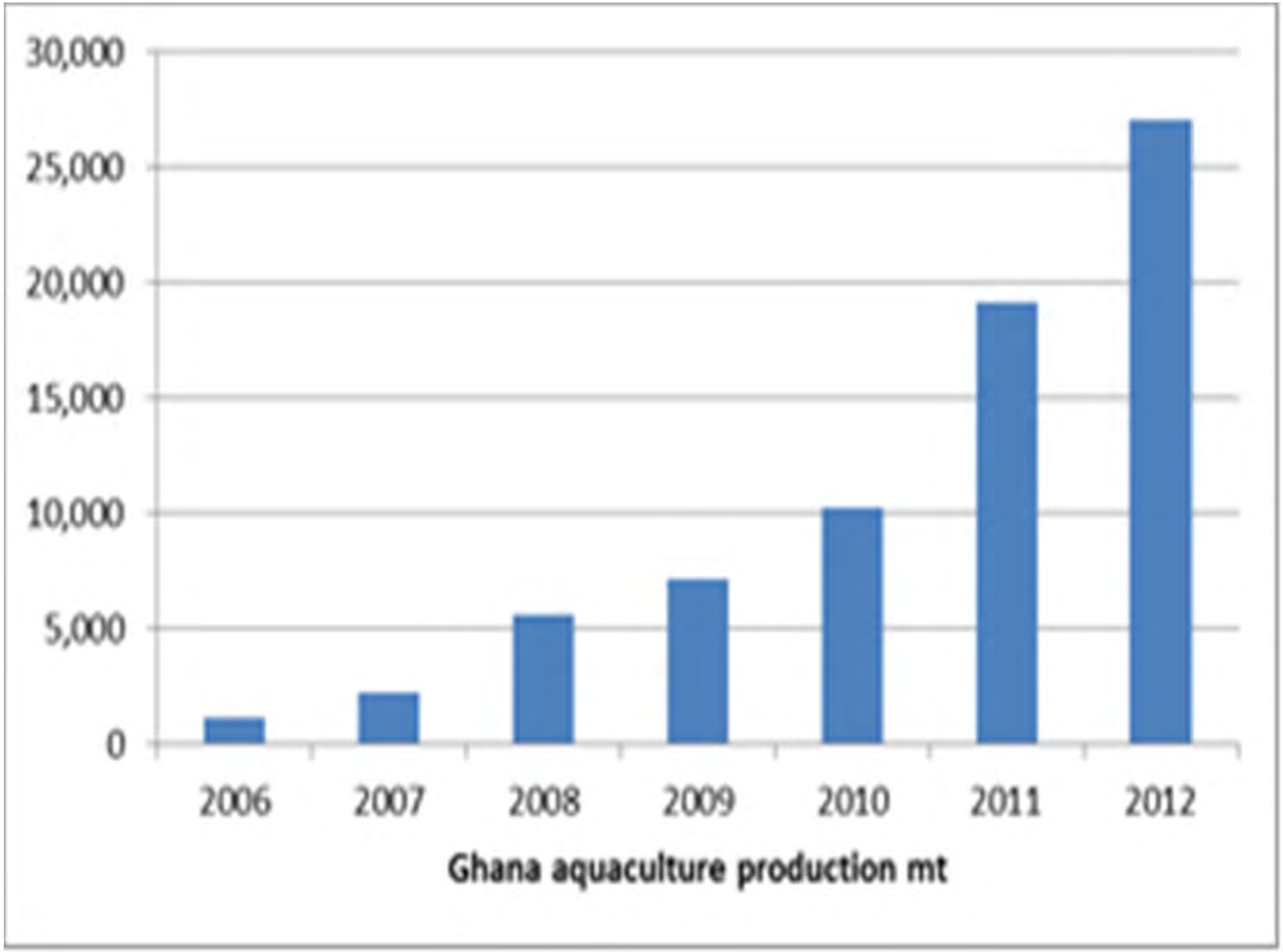
- African catfish or mudfish, *Clarias gariepinus* make up the rest

Growth of tilapia farming in Ghana

- Ghana's interest in aquaculture dates back to 1953 by British colonial administration

- 1980 saw massive Government promotion with about 2,000 ponds constructed – not much resulted

- By 2000 production was only 750 MT but;
- increased to 5,600 MT in 2008 and
- 10,000 MT in 2010 and
- 26,000 MT in 2012.
- One farm contributed 6,400 MT in 2012.


30,000
25,000
20,000
15,000
10,000
5,000
0
2006
2007
2008
2009
2010
2011
2012
Ghana aquaculture production mt

- Rapid increase in production attributed to the introduction of floating cage systems on in the Volta Lake and the Volta River.

Foreign investment

Brooding ponds

Loading and delivery

Export to Nigeria

Favourable environmental and institutional conditions

- Suitable landscapes, water bodies and favorable climatic conditions
- A high demand for fresh tilapia
- Employment and income generation option

BURKINA FASO
BENIN
TOGO
CÔTE D'IVOIRE
Bolgatanga
Tamale
White Volta
Black Volta
Sunyani
Lake Volta
Mount Afadjato
Kumasi
Tano
Obuasi
Ho
Koforidua
Volta
Ankobra
ACCRA
Tema
Cape Coast
Takoradi
Gulf of Guinea
0 50 100 km
0 50 100 mi

Favourable environment

- The Volta Lake covers an area of 8,500 sq. km and the Volta River stretches about 50km into the sea.
- 11,000 ha of irrigated
- 300 small dams, dugouts and reservoirs in Northern Ghana alone.
- Climatic conditions are suitable throughout the year for tilapia culture.

A high demand for fresh tilapia

- Very large local demand for fish as a result of huge national deficit;

- High preference for tilapia leading to rising prices despite increase in production.

- A rapidly growing population with 60% of population below 24 years.
-
- A growing middle class with taste for tilapia.

Employment and investment option

- Over 24,000 canoes and boats on the Volta lake facing dwindling catch.

Institutional support

- Fisheries Act, 2002 Act 625; (regulates the practice of aquaculture)
- The National Aquaculture Strategic Framework (2006).
- Ghana National Aquaculture Development plan (GNADP) (2013)
- The Tilapia Volta (TIVO) Project (2006);
- Fisheries and Aquaculture Policy (2008);

Institutional support

- National Medium Term Policy Framework (2010);
- Medium Term Agriculture Sector Improvement Program (2010);
- Fisheries Regulations L.I. 1968 of 2010; and
- West African Regional Fisheries Program in Ghana (2011);
-

Institutional support

- A new Ministry of Fisheries and Aquaculture Development (MOFAD)
- Recognition of the private sector as drivers in development
- Existing policy of allocating 5% of irrigation areas to aquaculture
- Illegality of importing tilapia into Ghana

Institutional support

- The Water Research Institute (WRI)
- Licences for aquaculture operations
- Public Universities and institutes provide courses in aquaculture
- Collaborations between some Universities and some farms

Fish Feed

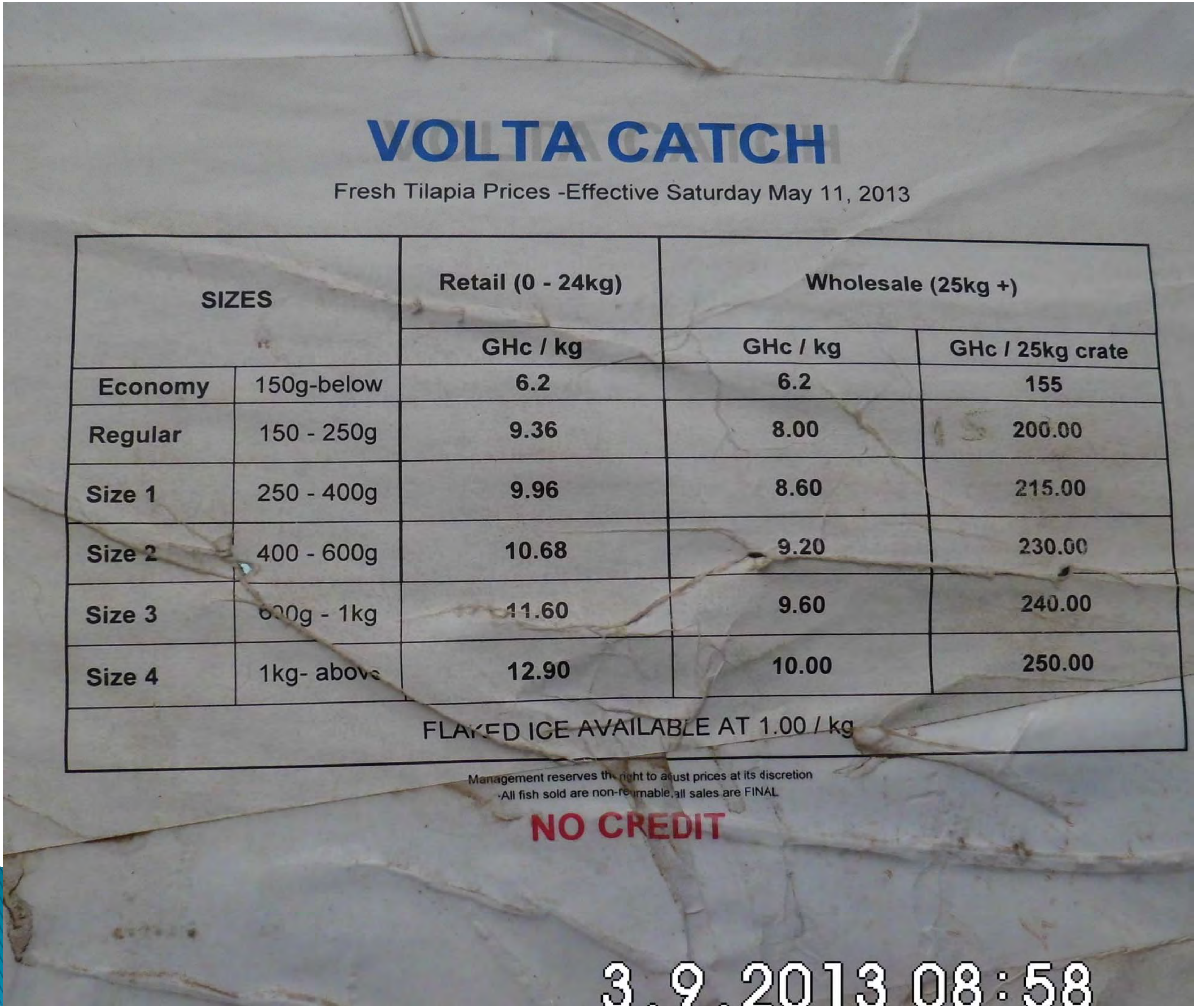
- Fish feed is mostly imported from Brazil, China, Israel and South East Asia. Costing; US$1.00/kg to US$2.50 /kg
- A modern fish feed mill producing 1,500MT established sourcing 70% of inputs locally
- Supplying West Africa

Tilapia fingerlings

- WRI has been developing superior strains of O. niloticus over eight successive generations.

Market

- Tilapia is sold whole and fresh (degutted).
- Retail prices for fresh tilapia range from US$ 3.70-4.00/kg.
- Good market for all sizes of tilapia; <200g, and >350g.



VOLTA CATCH

Fresh Tilapia Prices -Effective Saturday May 11, 2013

SIZES		Retail (0 - 24kg)	Wholesale (25kg +)	
		GHc / kg	GHc / kg	GHc / 25kg crate
Economy	150g-below	6.2	6.2	155
Regular	150 - 250g	9.36	8.00	200.00
Size 1	250 - 400g	9.96	8.60	215.00
Size 2	400 - 600g	10.68	9.20	230.00
Size 3	600g - 1kg	11.60	9.60	240.00
Size 4	1kg- above	12.90	10.00	250.00
FLAKED ICE AVAILABLE AT 1.00 / kg				

Management reserves the right to adjust prices at its discretion
-All fish sold are non-returnable, all sales are FINAL

NO CREDIT

3.9.2013 08:58

Economics of production

- Net margins of 30% and more
- Cost of production is higher than those of low cost leaders in other countries.
- Big farms are doing very well
- Small scale farmers are struggling
- Production value chains of large scale bypass local small scale.

CHALLENGES AND POTENTIAL

<u>Institutional level</u>

- inadequate enforcement of regulations,
- inadequate coordination among multiple agencies
- inadequate control on fish farming zones
- difficulties with access to land
- inadequate control over discharges into the water bodies

Government and farmers Association (GAA) working on all of above.

Enterprise level;

- access to credit especially by small scale farmers,
- high cost of feed,
- high cost of fingerlings
- access to quality fingerlings,
- lack of knowhow and experience,
- lack of access to skilled personnel.

CONCLUSION

- Foreign commercial investors have drastically changed and impacted on practice of fish farming in Ghana.
- Much more needs to be done for pond culture and support to small scale producers.
- Enforcement of regulations will be required to ensure orderly growth towards a period of rationalisation and consolidation.
- Government and fish farmers are on good course of collaboration

THANK YOU