

COUNTRY REPORT-ZAMBIA

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WESTERN PROVINCE.**

MINISTRY OF AGRICULTURE AND LIVESTOCK



Presentation Outline

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- Introduction
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- Traditional Ceremonies
- Major Economic Activities
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- Capture Fisheries Production
- Livestock Population
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- Constraints

NATIONAL SYMBOLS



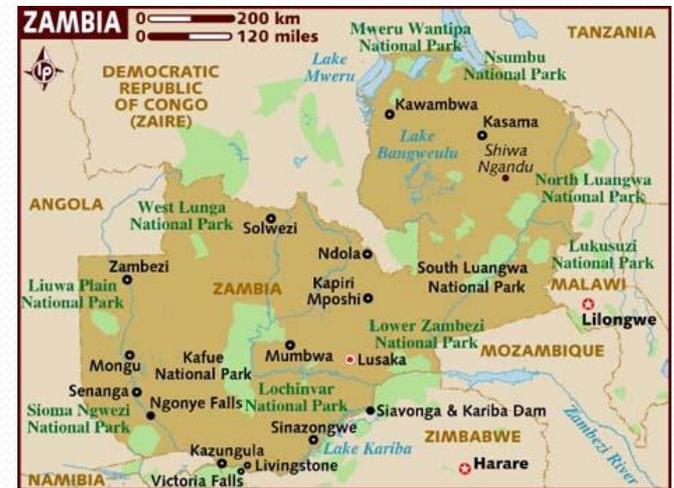
National Flag



Coat of Arms

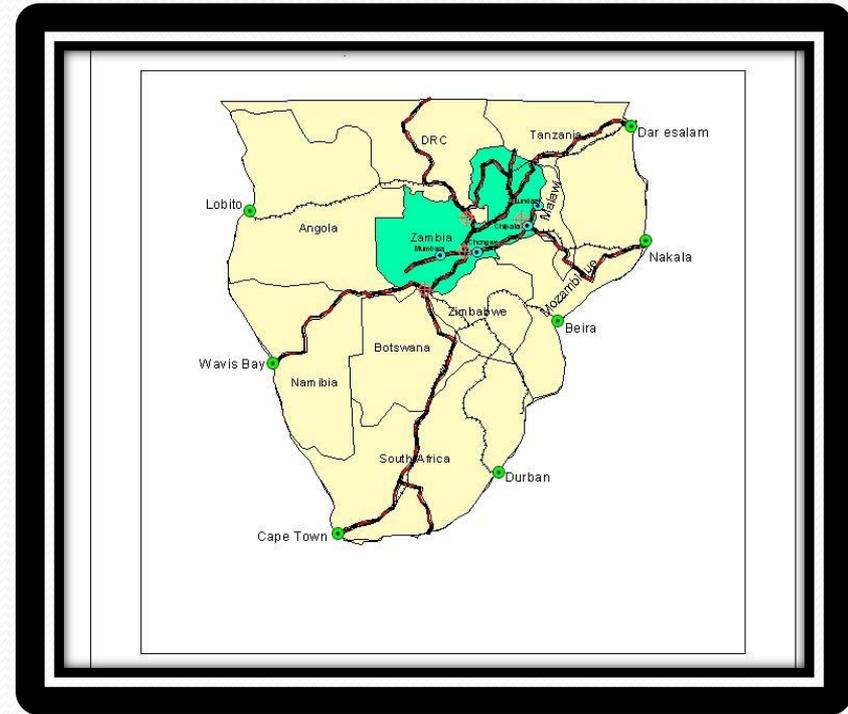
Introduction

- Zambia is a land locked/land-linked country in Southern Africa with a tropical climate
- Total surface area is 752,614 Km².
- Zambia has an estimated population of 13,046,508 people (2010 Census).
- There are 73 tribes (ethnic groups)
- Main religion: Christianity (99%)



Introduction Cont'd

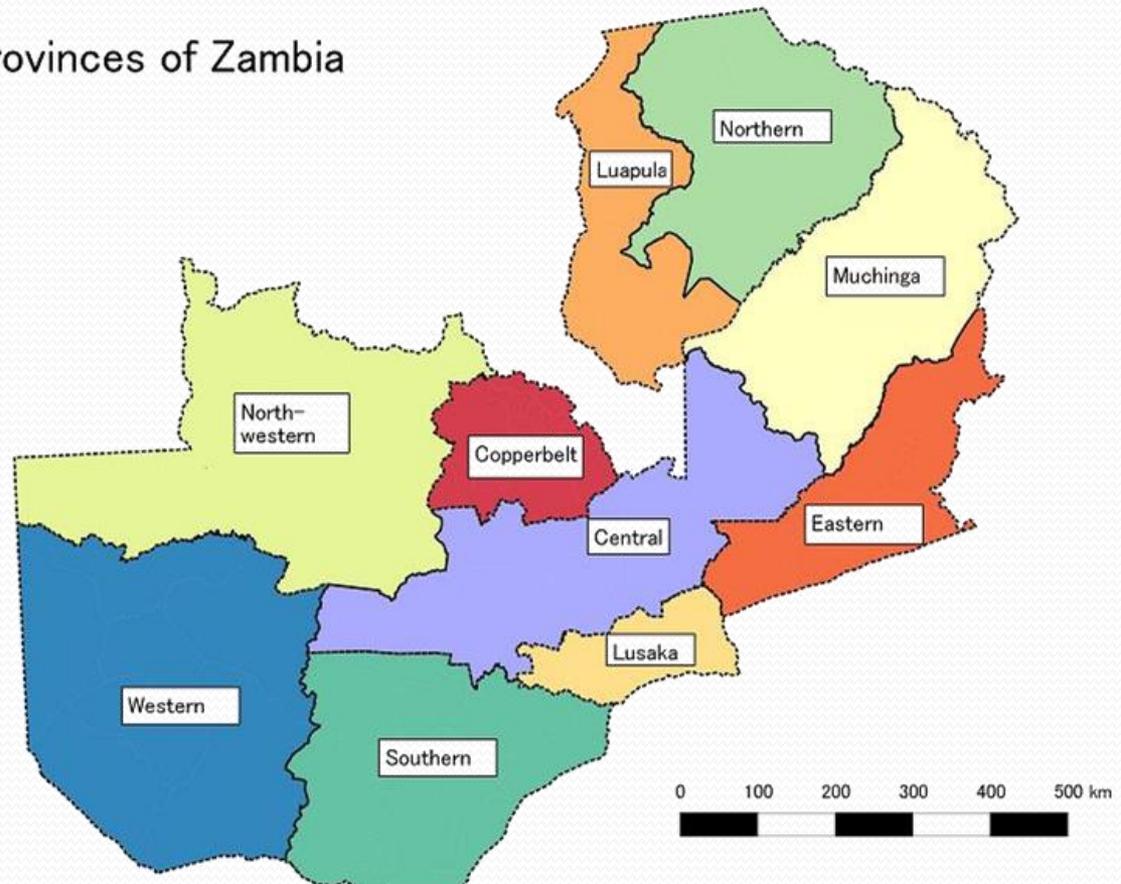
- ❑ Located between latitude 8° and 18° South of the Equator and its longitudinal position is between 22° and 36° East
- ❑ It has 8 neighboring countries:
 - Angola (West), Botswana (South-West), Congo D R(North), Malawi (East), Namibia (West), Mozambique (South-East), Tanzania (North-East) and Zimbabwe (South)



Introduction Cont'd

- Zambia has 10 provinces

Provinces of Zambia



Water Resources

Rivers

- Zambezi River
- Luangwa River
- Kafue River
- Kabompo River
- Luapula River
- Chambeshi River

And several other small rivers and various wetland areas representing a total of 15 million hectares of water (18% of the country)

Lakes

- ❖ Lake Bangweulu
- ❖ Lake Kariba- Africa's largest man made lake -226km long and in places up to 40 km wide (largest in the world by volume).
- ❖ Lake Tanganyika- longest lake in the world (677Kilometers) and the second deepest after lake Baikal in Russia (1433 meters deep).
- ❖ Lake Mweru
- ❖ Lake Mweru wa ntipa

Natural Attractions (Tourism in Zambia)

- Victoria Falls
- Local name: Mosi oa Tunya
(The smoke that thunders-one of the 7 natural wonders of the world)
- Width 1,708m
- Height 108 m
- 550l/min on average *(The world's largest sheet of falling water)*
- It is surrounded by world heritage sites
- Zambia also has 17 other waterfalls dotted around the country.



Tourism in Zambia cont'd

'ZAMBIA THE REAL AFRICA'



Tourism in Zambia Cont'd

- ❖ There are 20 national parks and 34 game management areas in the country.
- ❖ South Luangwa, Kafue and Lower Zambezi National Parks rank among the finest game parks in the world.
- ❖ About 30 % of Zambia's 752,614 square kilometers is reserved for wildlife.



Tourism in Zambia cont'd



Lion



Elephant



Buffalo



Leopard



Traditional Ceremonies

- There are more than 20 major annual traditional ceremonies in Zambia, manifesting customs, social life, rituals, oral history, material and spiritual culture.
- These ceremonies provide a valuable insight to a traditional culture that has been passed down from generation to generation.
- Some of the big ceremonies include ***Kulamba, Kuomboka, Umutomboko, Shimunenga, Ncwala, Lwiindi, and Likumbi Lya Mize.***



Traditional Ceremonies cont'd



Ngoni Warriors



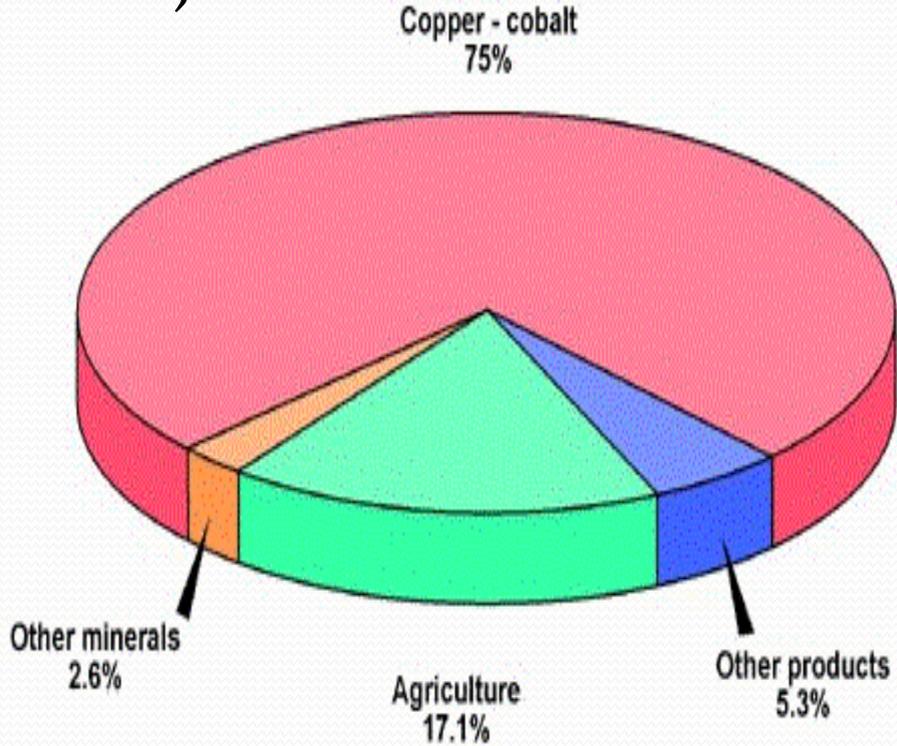
Kuomboka Ceremony



Shimunenga Ceremony

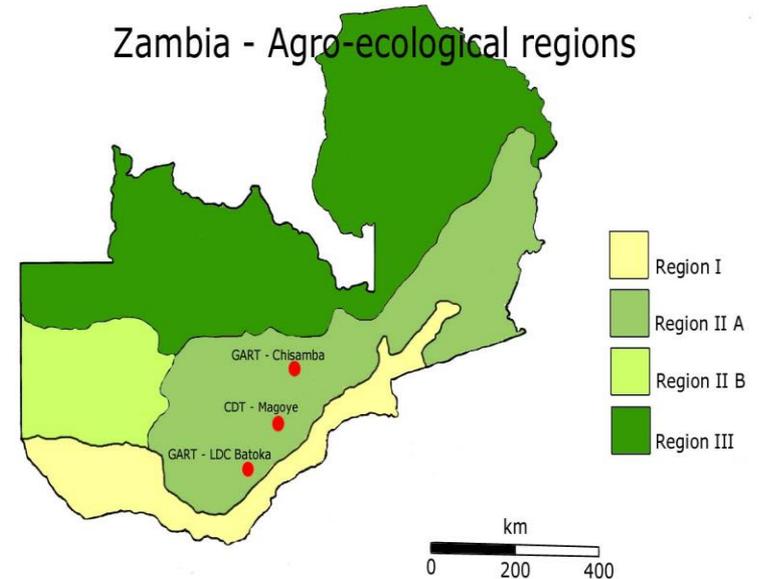


- Major Economic Activities



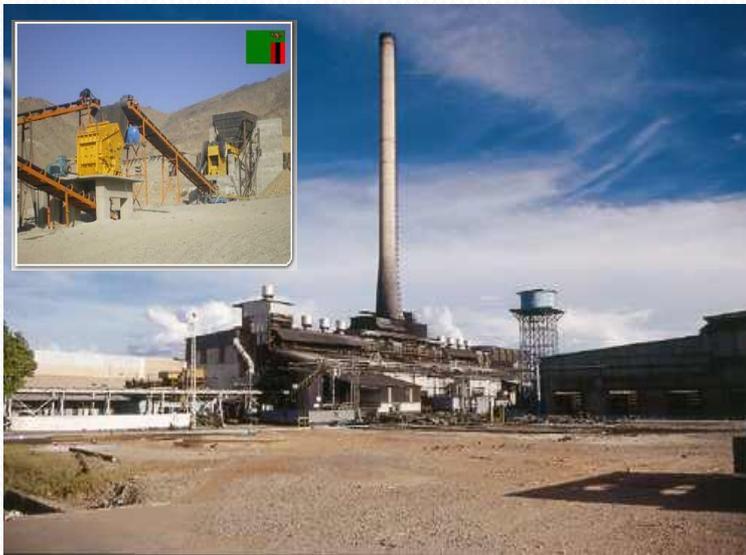
Fish contribution to Gross Domestic Product (GDP) is 2.9%

- Rainfall amounts



- Region I - <800mm/year
- Region IIA & IIB - 800mm-1000mm/year
- Region III - 1000mm-1500mm/year

Major Economic activities cont'd



Ministry of Agriculture and Livestock (MAL)

MAL Objectives

- Promote the development of an efficient, competitive and sustainable agricultural sector that assures food security at national and household levels and maximizes the sector's contribution to Gross Domestic Product (GDP).
- Has 11 departments: Fisheries (DoF), Agriculture, Veterinary Services, Livestock Development Unit, Policy & Planning, Agri-Business & Marketing, Agriculture Research (ZARI), Seed Control & Certification Institute, Human Resource & Adm, Co-operatives & National Agriculture Information Services.



Department of Fisheries

Departmental Objectives:

- To increase fish production through aquaculture and promote sustainable utilisation of fisheries resources, thereby contributing to the economy through the generation of employment, income and improved availability of fish.
- ❖ Established under Fisheries Act, CAP 200 of the laws of Zambia
- ❖ The fisheries sector supports about 55,000 people directly and about 245,000 people indirectly

Capture Fisheries Intervention Measures

(i) **Increased Surveillance and Enforcement**

- The Department of Fisheries regularly monitors activities on and around gazetted water bodies to monitor if fisher folks and other stakeholders adhere to rules and regulations.
- Out of 400 fish species in the country, only 17 of them are of commercial value
- Per capita fish consumption is 6.5 Kg

ii. Annual Fishing Closure

- Every year, the government imposes the Annual Fishing Closure from 1st December to 28th February in selected fisheries to enable fish breed without interference as this coincides with the peak breeding season in the country. Additionally, some breeding areas have been permanently closed for fishing like in Luapula River where the species *Labeo altivelis* (Rednose Labeo) is threatened with extinction, and in an identified area of Kafue River where the species *Hepsetus odoe* (Kafue Pike) breeds. Furthermore, no fishing is allowed in all the national parks.

(iii) Establishment of Fisheries Management Committees

- All major capture fisheries areas have formed or are in the process of forming Fisheries Management Committees to help with surveillance and enforcement of fisheries regulations pertaining to that fishery. This is done in conjunction with traditional leadership.

(iv) Re-stocking of Natural Water Bodies

- This is being done in selected fisheries where fingerlings bred from hatcheries and fish farms are stocked in rivers and lakes which have been depleted or threatened with depletion of fish stocks.

Fish Diseases

- While there no massive incidences of fish diseases in aquaculture, capture fisheries experience disease outbreaks. The disease that usually affects fish is Epizootic Ulcerative Syndrome (EUS), which is caused by the water mould (oomycete) called *Aphanomyces invadans*. This happens when the water pH level drops considerably



Source: Photo courtesy of R. Bills, South African Institute for Aquatic Biodiversity

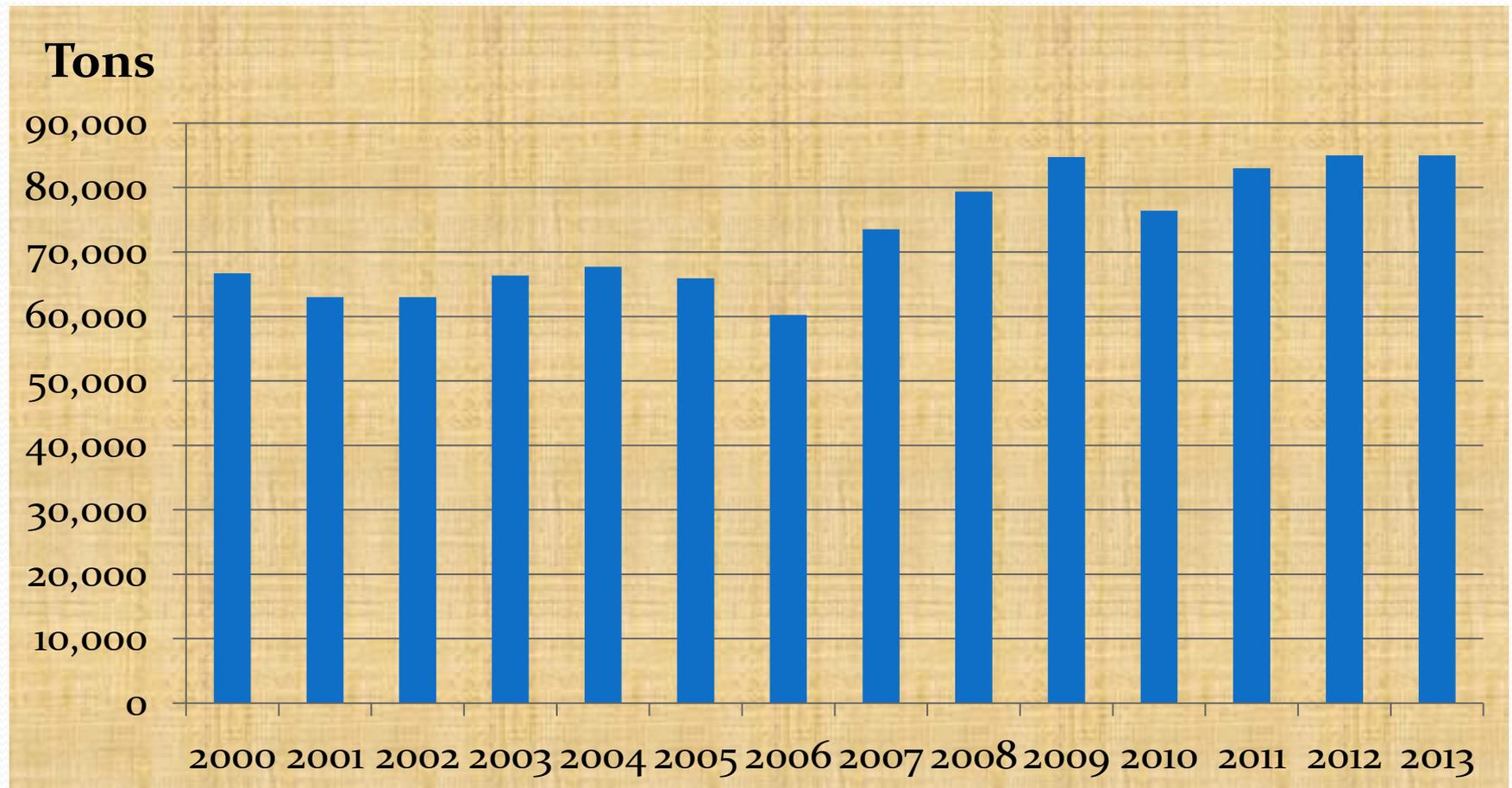
FIGURE 3: Tissue necrosis associated with an intense inflammatory reaction in an early lesion in a dashtail barb (*Barbus poechnii*) from the Kabompo River, upper Zambezi.



Capture Fisheries Production 2000-2010

FISHERY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Bangweulu	13,687	14,370	14,370	13,617	13,903	13,533	12,366	15,098	16,301	12,522	16,555
Mweru-Luapula	8,836	9,277	9,277	8,791	8,976	8,737	7,983	9,747	10,524	13,017	10,693
Mweru-Wantipa	3,016	3,167	3,167	3,001	3,064	2,982	2,725	3,327	3,592	4,443	3,688
Tanganyika	13,156	13,813	13,813	13,089	13,364	13,008	11,886	14,512	15,668	19,380	16,085
Kafue	6,131	6,437	6,437	6,100	6,228	6,062	5,539	6,763	7,302	6,864	5,697
Kariba	8,863	9,306	9,306	8,818	9,003	8,768	8,008	9,776	10,555	13,055	10,866
Lukanga	1,306	1,371	1,371	1,299	1,327	1,291	1,180	1,441	1,556	1,599	1,327
Upper-Zambezi	6,728	64	64	6,694	6,834	6,653	6,079	7,421	8,012	7,531	6,251
Lusiwashi	2,139	2,246	2,246	2,128	2,173	2,115	1,933	2,359	2,547	3,150	2,615
Lower Zambezi	588	617	617	585	597	581	531	649	701	659	547
Itezhi-tezhi	2,221	2,332	2,332	2,210	2,256	2,196	2,007	2,450	2,646	2,496	2,072
TOTAL	66,671	63,000	63,000	66,332	67,725	65,927	60,236	73,542	79,403	84,716	76,396

Capture fisheries Production 2000-2013 cont'd



Livestock Population

- 2010

NAME	POPULATION
Cattle	3,038,000
Goats	758,501
Sheep	466,506
Pigs	711,707
Poultry	75,938,123



- 2013

NAME	POPULATION
Cattle	4,200,000
Goats	832,562
Sheep	479,544
Pigs	865,899
Poultry	85,938,435



Aquaculture Development

- Aquaculture development is very important for various reasons
 - *To increase fish production so as to export*
 - *Increase per capita consumption of fish*
 - *Increase household income*
 - *The country has a lot of high potential areas for the venture*



Aquaculture Development cont'd

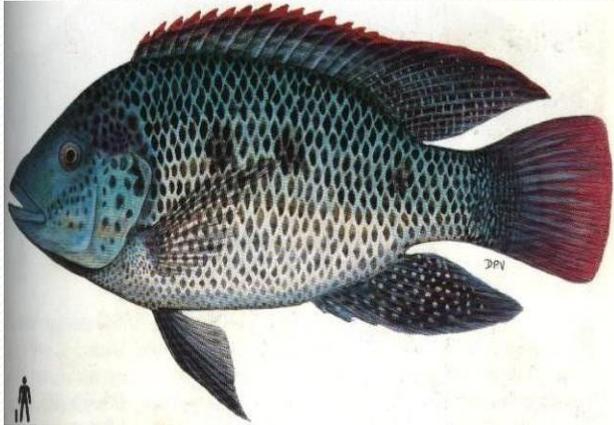
- Species cultured:
 - *Tilapia rendalli* (Red breasted bream)
 - *Oreochromis andersonii* (three spotted bream)
 - *Oreochromis macrochir* (Green headed bream)
 - *Oreochromis niloticus* (Nile tilapia, mostly in cages)
 - *Oreochromis tanganyicae* (Tanganyika bream)-new species being promoted

Aquaculture Development cont'd

- Other species being promoted:
 - *Clarias gariepinus* (African catfish)
 - *Clarias ngamensis*
 - *Clarias theodora*
 - NARDC-cat (Hybrid catfish)
 - *Cyprinus carpio* (Common carp)
 - *Procambarus clarkii* (Red swamp crayfish)
- ✓ *There 19 GRZ Fish Farms & 6 of them are used for research*



Species Cultured



Oreochromis andersonii

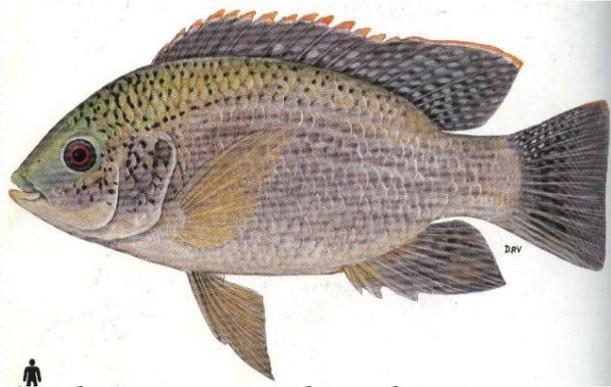


Tilapia rendalli



Oreochromis tanganyicae

Species Cultured cont'd



Oreochromis machrochir



Oreochromis niloticus



Cyprinus carpio



Procambarus clarkii (Red swamp crayfish)

Types of Aquaculture Practices

- Two main types of aquaculture
 - (i) Earthen Ponds-Extensive, Semi-intensive & Intensive
 - (ii) Cages

➤ Fish Production Statistics

DESCRIPTION	NO./QUANTITY
Fish Farmer Population	9, 453
Number of ponds/cages	21,813
Capture Fisheries Production	85,000 tons (91%)
Aquaculture Production	8,400 tons (9%)
Total fish Production/year (Aquaculture and Capture)	93,400 tons
National Demand	145,000 tons



Aquaculture Strategies

(i) Establishment of Community Based Fingerling Production Centers

- Community Based Fingerling Production Centers are being established in various areas of the country. It is envisaged that these will be centers within the community where farmers will get quality fingerlings (fish seed), thereby reducing the cost of aquaculture as these fingerlings will be right in the community. The strategy is to run these centers on a Public Private Partnership (PPP), whereby the government works together with the private sector to develop the aquaculture industry.



Aquaculture Strategies cont'd

(ii) Establishment of Aqua Parks

- This strategy is modeled after the crop agriculture strategy of farm blocks (Aquaculture as a business). In these potential areas, there will be specific areas which will be zoned and reserved for aquaculture development. The areas will have freezing facilities, markets and fish processing industries. Additionally, roads will be improved and other secondary industries developed.

Aquaculture Strategies cont'd

(iii) Establishment of Indoor Hatcheries

- To increase fingerling (fish seed) production in the country



Aquaculture Strategies cont'd

(iv) Promotion of Cage Fish Farming



Aquaculture Strategies cont'd

(v) Streamlining Education Delivery and Training of more Extension Staff

- The Ministry of Education through the Copperbelt University has introduced the Bachelor of Science Degree in Fisheries and Aquaculture. This will enable the sector have highly qualified people to tap from. Other institutions that only offered courses in agriculture science have introduced aquaculture as a course.

(vi) Facilitation of Loans

- The government has embarked on an empowerment program through an organization called Citizen Economic Empowerment Commission which operates revolving funds. This commission has identified aquaculture as one of the ventures that people can engage themselves in to improve their livelihoods. Every citizen is free to apply for a loan with flexible repayment conditions provided they have a bankable project proposal.

Constraints

- Aquaculture development is being hampered by lack of or expensive formulated feeds in most rural districts.
- Inadequate field extension staff as the sub-sector is still in its infancy stages as compared to other agricultural practices.
- Lack of adequate quality fingerlings which has negatively affected the development of aquaculture in the country as it has led to non-stocking of fish ponds.
- Too few qualified staff to effectively spearhead the sub-sector
- Low adoption levels .
- Pollution of some rivers by mining companies and other industries (very rare occurrence)



ZIKOMO
THANK YOU

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