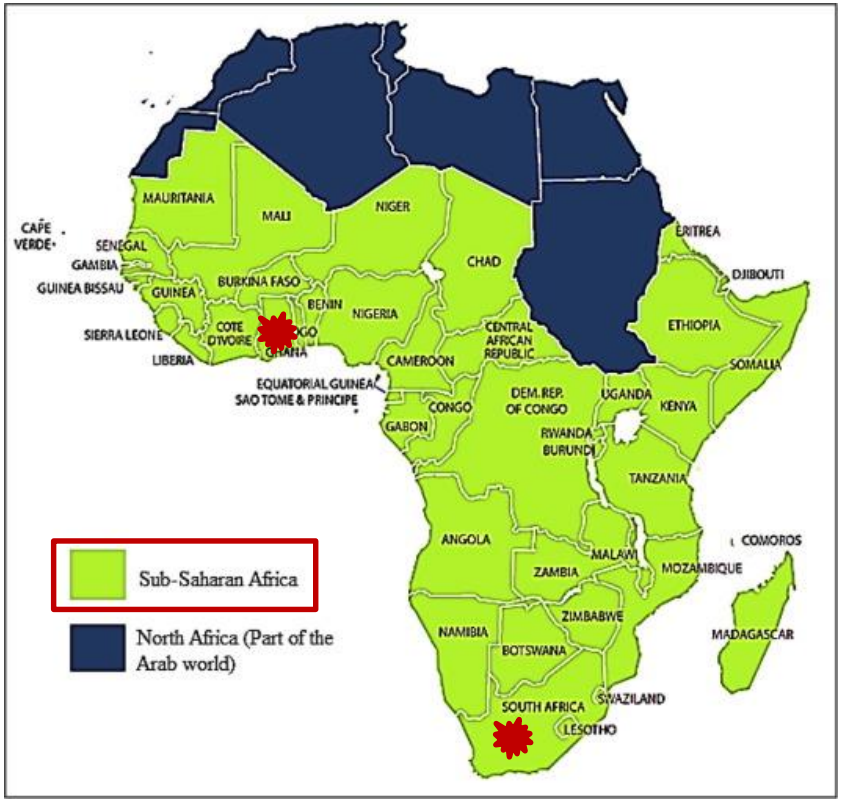
IFISH 5
International Fishing Industry Safety & Health Conference
St. John's, NL, Canada | June 10 -13, 2018

Sub-Saharan Africa (SSA) AOHS profile – Focus on South Africa and Ghana

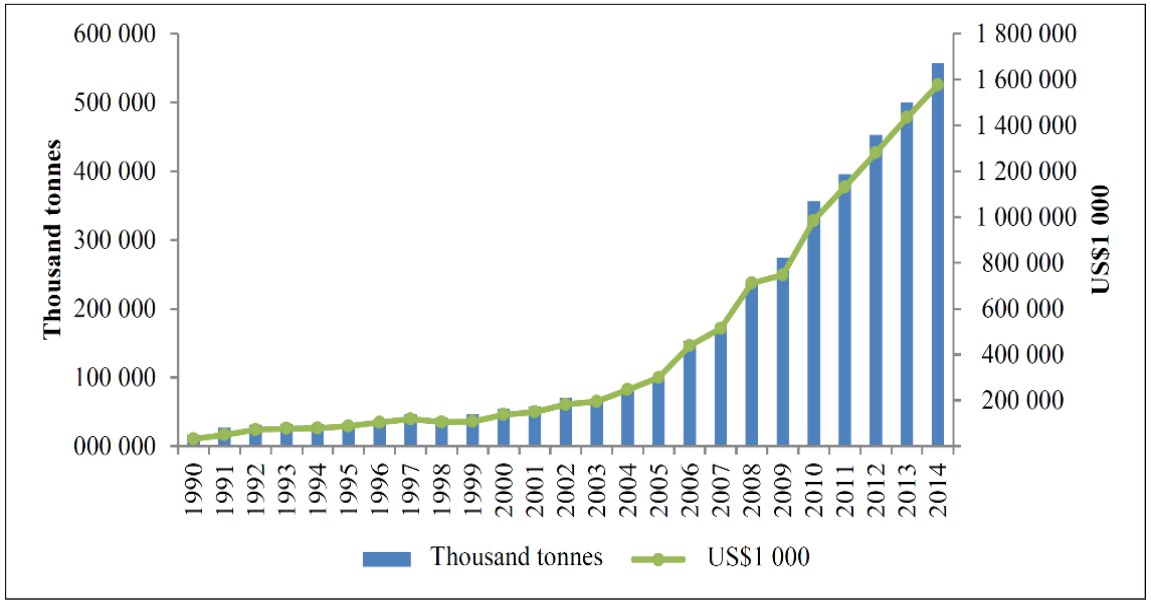


Mohamed Jeebhay

Occupational Medicine Division and Centre for Environmental & Occupational Health Research, University of Cape Town, South Africa

Aquaculture overview in SSA

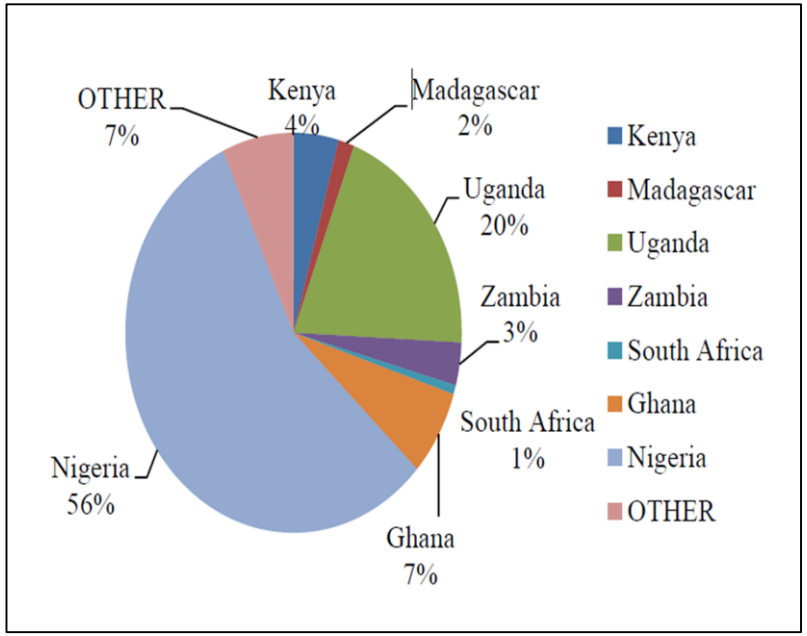
- Although the contribution of Africa to the world's aquaculture production is low, the industry is growing at a higher rate (10.4%) compared to the global rate (5.9%)
- SSA aquaculture production increased seven fold between 2004 (80 900 tonnes) and 2014 (556 950 tonnes)



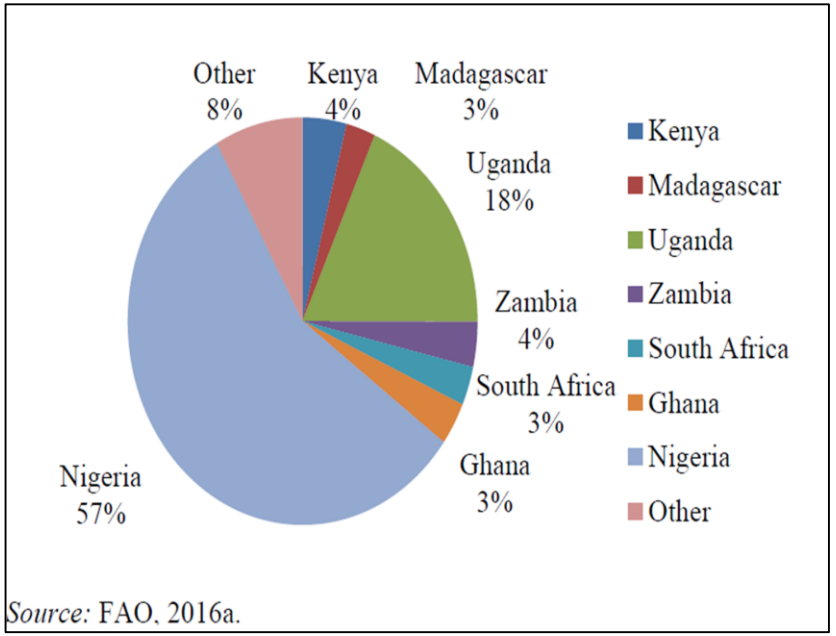
Aquaculture production and value in Sub-Saharan Africa (1990–2014) *Source:* FAO, 2016
www.fao.org/fishery/statistics/software/fishstatj/en

Aquaculture overview in SSA

- The seven major aquaculture producers in SSA include Nigeria, Uganda, **Ghana**, Kenya, Zambia, Madagascar and **South Africa**.



The individual share in **quantity of aquaculture** among top 7 aquaculture producers in SSA in 2014



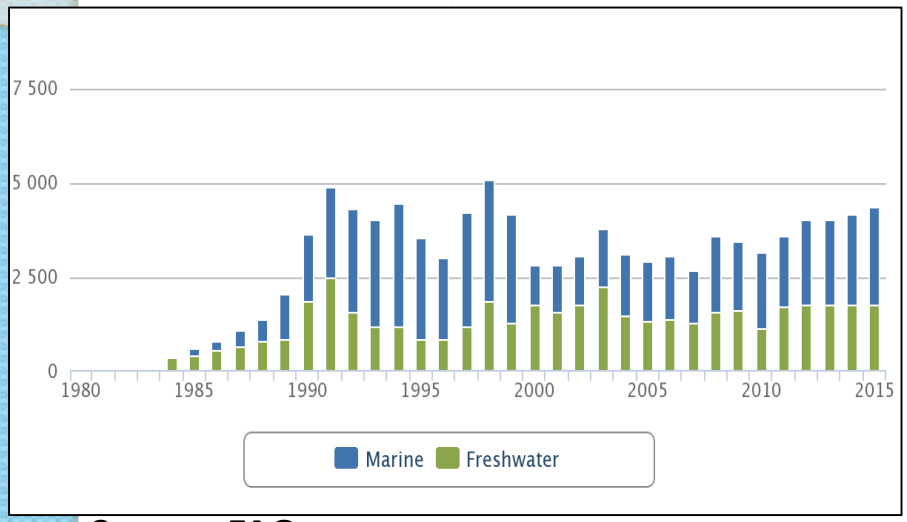
The individual share in **value of aquaculture** among top 7 aquaculture producers in SSA in 2014

***Source:* FAO**

www.fao.org/fishery/statistics/software/fishstatj/en

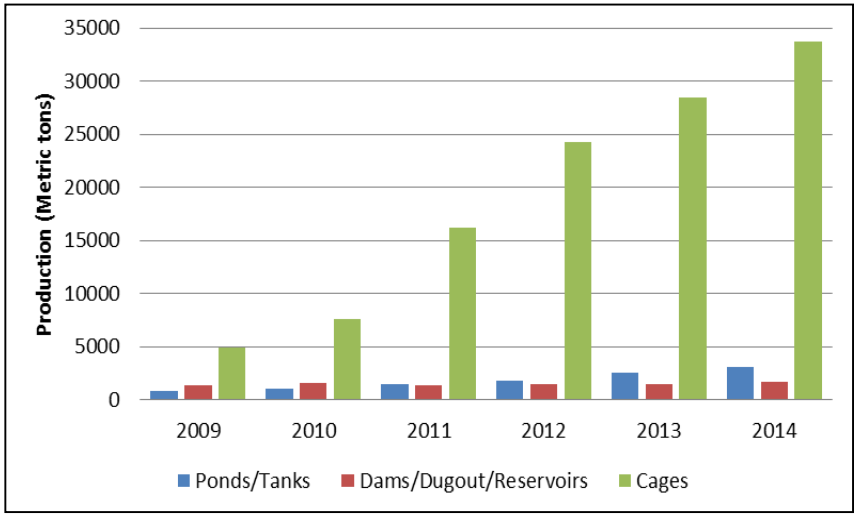
Annual aquaculture production

South Africa



Source: **FAO**
http://www.fao.org/fishery/statistics/software/fishstatj/en

Ghana

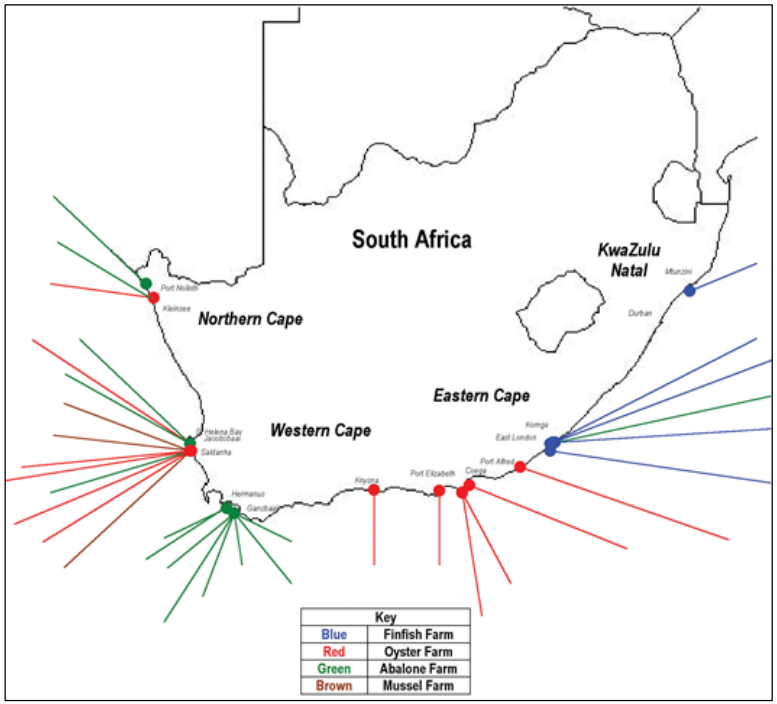


Source: **Rurangwa et al., 2015**
lhttp://library.wur.nl/WebQuery/wurpubs/fulltext/337344

- Aquaculture industry in both countries is still relatively underdeveloped, but represents great potential

Identification of aquaculture locations

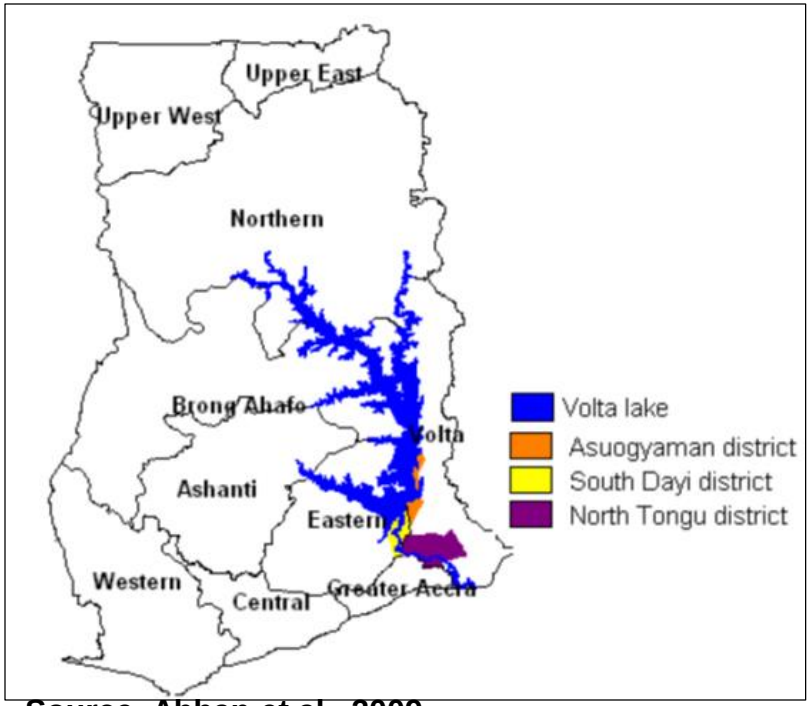
South Africa



Source: Fishing industry handbook, 2017
http://new.gwarmanpublications.co.za/?page_id=33

Major species: Trout, tilapia, catfish, carp, crayfish, ornamentals, Nile crocodile, abalone, oysters, finfish, mussels, seaweed, ornamentals

Ghana



Source: Abban et al., 2009
https://pdfs.semanticscholar.org/5e85/488b5e9761894de90c5e1b53ff7cff175bfb.pdf

Major species: catfish, tilapia, shrimp, marine fish and eel.

OHS in aquaculture: Hazards that inform risk assessment and risk management

South Africa

- No studies on specific hazards and risks in aquaculture
- Recent postal survey identified chemical usage and noise as important hazard in abalone farms
- Since aquaculture producers may also be involved in processing activities, these activities should also be investigated
- Hazards in processing include: safety, noise, low temperature, biological and ergonomic factors

Ghana

- Greater emphasis placed on food safety than on worker's health and safety
- No specific reports identified on HRAs done in the Ghanaian aquaculture industry
- Child labour in fisheries and aquaculture is an important issue
- Children are exposed to wide spectrum of hazards without PPE

Aquaculture occupational diseases and injury a statistics

South Africa

- No specific data from the aquaculture industry
- Work related symptoms in fish processing:
  - *Postal survey of employers:*
    - Skin rashes: 78%
    - Asthma: 7-16%
    - Non-specific allergies: 15%
  - *Epidemiological survey*
    - WR ocular-nasal/chest symptoms: 26% vs 16%
    - Allergic sensitization to fish: 7%
    - Fish allergic protein contact dermatitis: 2%

Ghana

- No specific data for aquaculture-related injuries and diseases identified
- Important injuries, diseases and fatalities related to child labour: drowning, parasitism (bilharzia and guinea worm), ear problems including partial deafness

Welfare conditions and work-related factors that contribute to ill-health and injury

South Africa

- Relevant legislation
  - Basic Conditions of Employment Act (1997)
  - Labour Relations Act (1995)
  - Compensation for Occupational Injuries and Diseases Act (1993)
- Very low rate of employer-provided and funded workplace-based health services
- Abalone and trout farms report annual food handler medical examinations and audiograms for workers exposed to noise

Ghana

- Relevant legislation
  - Ghana Labour Act (2003)
  - Workmen's Compensation Act (1987)
- Child labour is a major issue - children are trafficked to distant destinations to work in fisheries
- Unclear the extent of child labour in aquaculture operations compared to artisanal fishing activities, but foreign owned companies outlaw it in their operations

Aquaculture policy, guidelines and legislation

South Africa

- No aquaculture-specific occupational health and safety guidelines, policies or legislation
- Legislation is fragmented – main act is the Occupational Health and Safety Act (1993)
- Enforcement:
  a) Department of Agriculture, Forestry and Fisheries
  - Manage marine living resources and ensure growth of aquaculture sector

  b) Department of Labour
  - OHS of workers and compensation for occupational injuries and diseases

Ghana

- OHS responsibility is fragmented due to lack of a comprehensive national OHS policy
- Relevant legislation

  a) Aquaculture-related
  - The Fisheries Act (2002)
  - Environmental Protection Agency Act (1994)
  - Food and Drugs Law (1992)

  b) OHS-related
  - Ghana Labour Act (2003)

Analysis of what works, does not and how improvements can be made?

South Africa

- Abalone aquaculture operations promote OHS (postal survey) through:
  - Monthly OHS meetings
  - Monthly talks to discuss different health and safety issues
  - Training
  - Implementation of recommendations by the external safety consultants
  - Regular emergency evacuation drills
  - On-going general awareness about the importance of OHS

Ghana

- A leading tilapia farm promotes OHS through:
  - Developing OHS guidelines
  - Prohibiting child/forced labour and human rights violation
  - Worker's insurance policy
  - Specific OHS protocol focusing on hazard elimination and risk management
  - General and focussed annual medical examinations

THANK YOU