

Small scale fisheries – Big contribution

Why developing fish health capacity is the insurance to this industry

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Defining fisheries



Fisheries:

Harvesting of wild fish

Aquaculture:

Growing of fish in an enclosure and promoting its growth

A continental perspective of fisheries

Fisheries in Africa plays a very important role in:

- Food security
- Food production
- Economic development
- Job creation
- AU / NEPAD priority



The contribution of fisheries in Africa

- 45 million Africans are directly dependent on fishing
- FAO estimates that fish is 22% of protein intake in SSA
- This share exceeds 50% in poorest countries
- Fishery value in 2004 was US\$ 4.3 billion – 8% of world value.



Case study: Malawi's fishery

- Annual production of 50 000 tons per annum
- Primary sector employs 65 000 fishers
- Secondary sector employs 350 000
- In 1976 per capita consumption of fish was 12.9kg, in 2001 dropped to 3.6kg
- 90% of fishers are artisanal



The growth of aquaculture world wide

- Worldwide, the fastest growing animal feed sector (6.9%)
- 47% of all fish produced is from aquaculture



**Encouraging growth
in Africa**

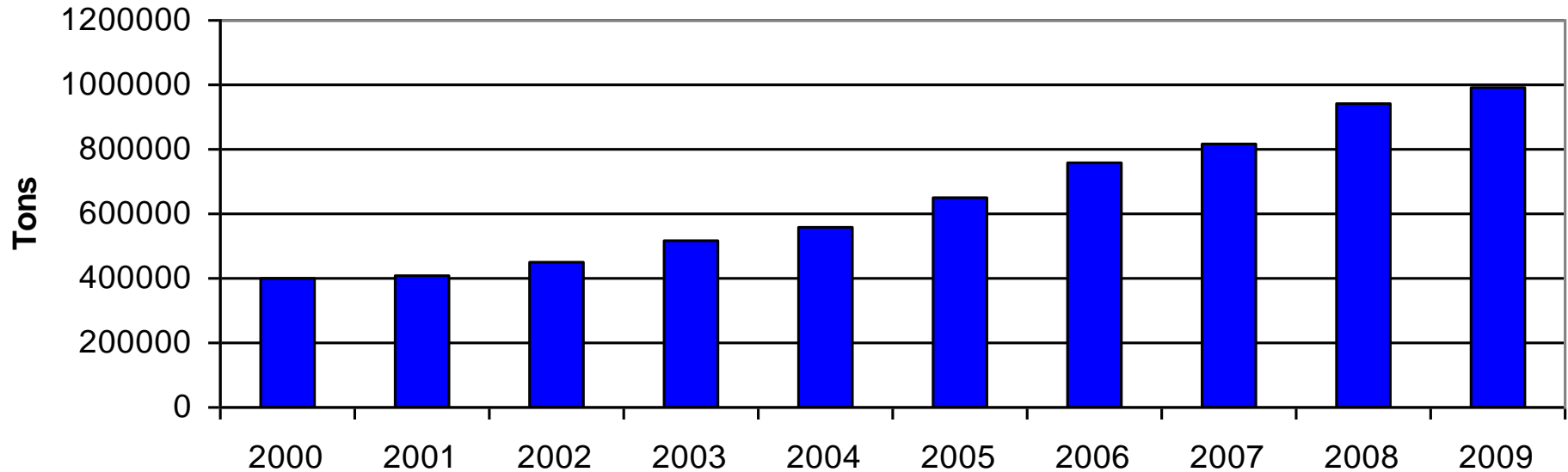
Why is aquaculture growing

1. Wild fish stocks have been over exploited
2. Demand for fish is growing
3. Aquaculture technology has developed
4. Africa is the new frontier for aquaculture



Fish health becomes critical in aquaculture

Aquaculture production in Africa



Growth in Africa 147%

Growth in Asia 74%

Inland fisheries plays a critical role in food security in Africa

Aquaculture plays an important role in the growth of Africa

Developing fish health capabilities is the insurance in this industry

Why is aquaculture susceptible to diseases?

- Difficult to isolate farms from the environment – sharing water
- Fish are grown intensively
- There can be a lot of transfer between farms of eggs, fingerlings and broodstock
- In many countries fish surveillance and restrictions are lower than for farm animals



Learning from Chile

- Chile is the second largest producer of salmon
- It produced approx 650 000 t of salmon
- In 2010 due to ISA production fell to 250 000 t
- Jobs from 55 000 to 25 000



"Salmon farming expanded quickly, without a regulatory framework or adequate controls to prevent and anticipate environmental problems or the development of transmittable fish diseases,"

http://www.upi.com/Science_News/2010/08/17/Disease-decimates-salmon-farms-in-Chile/UPI-73471282080634/



Learning from Asia

- “A 1995 estimate suggests that aquatic animal disease and environment-related problems may cause annual losses to aquaculture production in Asian countries of more than US\$3 thousand million per year (ADB/NACA, in press)”



<http://www.fao.org/DOCREP/003/W7499E/w7499e23.htm>



The threat of fish diseases in Africa is real

- There will be new outbreaks of fish diseases in Africa as aquaculture grows and possible effects of climate change
- The risk to fisheries & aquaculture is high



EUS in the Zambezi

- In 2006 Epizootic Ulcerative Syndrome (EUS) was recorded in the Chobe- Zambezi system
- In 2008 / 9 EUS has been spreading upstream into the Barotse plain and now the entire upper Zambezi system
- In 2011 EUS recorded in South Africa



White spot in Mozambique

1. WSSV – a notifiable disease to the OIE was recorded in September 2011 in Mozambique
2. This disease will impact prawn farming in Mozambique, Madagascar & have biodiversity fallout in SA



Case study 1

- Pilot (commercial) cage culture for kob and yellow tail
- Large corporate investing in venture
- Monthly fish health monitoring programme – cost approx US\$ 1000 per month



Case study 2

- Ornamental koi producer
- Farm infected with KHV...destroyed all stock...restart farm
- Significant financial burden...sell house and live at the farm!



Case study 3

- Small scale commercial farmer
- Makes about US\$ 50 per month from sale of fish
- If he has fish disease, what are his options ...?



The critical issues in fish health

- **Limited awareness by Governments on the relevance fish health**
- Veterinarians not trained in fish health
- Lack of diagnostics and surveillance services
- Lack of Bio-security measures
- The use of unregistered drugs for fish health



What do we need to do?



Defining the role of government

- Recognise the need and priority to develop fish health capacity
- Develop biosecurity measures
- Training of existing vets
- Include fish health in curriculum of veterinary schools
- Support diagnostic centres
- Seek regional agreements on fish health issues



Developing fish health capacity in Africa needs a long term view

Building capacity and services to deal with fish health issues should be proportionately equal in process and resource requirements as to animal health



- Rinderpest eradicated in 2011
- Programme to eradicate began in 1924
- Responsible to loss of millions of cattle

Advocacy for fish health

- Active campaign to highlight the need to prioritise fish health in Africa
- The campaign needs to target snr officials
- Africa summit on fish health?



Possible champions for Advocacy

- AU
- NEPAD
- OIE

Provide solutions

- Including fish health in the curriculum for BVSc
- Develop fish health centres for training and capacity building – using existing tertiary institutions / research centres
- Strengthen diagnostics and surveillance existing centres to deal with fish health
- Assist member countries to develop policy on fish health (OIE template)



The need to train state vets in fish health...1

1. There is a need to understand & manage fish health issues in Africa
2. State veterinarians are generally not equipped to deal with fish health issues
3. Need to train state vets (& para – vets and lab technicians) in fish health



The need to train state vets in fish health...2

1. “School health” management & surveillance is critical – especially for intensive systems
2. Aquaculture is a “new” sector – which requires initial support
3. Without fish health surveillance programmes countries may not be able to export
4. The widespread and large number of live fish transported makes this sector particularly vulnerable to diseases

How do we do this?

- A “champion” to promote fish health in Africa. This could be AU / NEPAD / OIE.
- Funding conference to support building capacity and infrastructure - provide plan.
- Strengthen regional centres where fish health expertise exists



Conclusion

- Fisheries & aquaculture plays an important role in food security in Africa
- Increase government awareness on fish health needs
- Fish health is increasingly becoming a critical factor with regards to food security in Africa
- There is a need to train vets in fish health
- There is need to develop capacity within diagnostics and surveillance centres to deal with fish health issues
- Role for AU / NEPAD / OIE for advocacy