



agriculture,
forestry & fisheries

Department:
Agriculture, forestry & fisheries
REPUBLIC OF SOUTH AFRICA

**Strategic Framework for Aquatic Animal Health and
Welfare in South Africa**

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1. Glossary

Aquatic Animal - refers fish, shellfish and any other group of animals usually occurring in the aquatic environment, with the exception of mammals and birds.

DAFF – Department of Agriculture Forestry and Fisheries.

EUS – Epizootic Ulcerative Syndrome

FAO – Food and Agriculture Organisation of the United Nations.

NASF – National Aquaculture Strategic Framework

NEPAD – New Partnership for Africa’s Development

OIE – World Organisation for Animal Health.

PVS - World Organisation for Animal Health’s (OIE) evaluation of the performance of veterinary services.

2. Background

On 3 November 2006, the policy for the development of a sustainable freshwater aquaculture sector in South Africa was gazetted (Notice 1519 of 2006). It lists monitoring and control of aquatic animal diseases as a basic principle. The policy for the development of a sustainable marine aquaculture sector in South Africa was gazetted (Notice 1109 of 2007) on 7 September 2007. This policy specifically calls for an animal health management and welfare program. Animal health is also highlighted under several other headings in the policy. The marine aquaculture policy implementation plan provides a suggested framework for health management and an animal health and welfare steering committee comprising Government officials, State veterinarians, Private veterinarians, University academics and industry representatives, was formed to drive implementation.

At the time that the aquaculture policies were gazetted, freshwater aquaculture was administered within the Department of Agriculture and marine aquaculture was the responsibility of the Department of Environmental Affairs and Tourism. Since the two policies were passed, there have been efforts to implement them with minimal success. Subsequently, the formation of a new Department of Agriculture, Forestry and Fisheries (DAFF) has created the opportunity for a unified effort to develop sustainable aquaculture in South Africa. In keeping with the broad policy and legislative intent, DAFF has been designated as the lead agency for the promotion, development and marketing of aquaculture and aquaculture products. With the development of the National Aquaculture Strategic Framework (April 2011), certain key interventions, like an Aquatic Organisms Health and Welfare Management programme, have been identified for implementation as one of the 17 strategic elements of the NASF.

Aquatic animal health is regarded as fundamental to the sustainability of the aquaculture industry and commercial fishery whilst simultaneously protecting the greater public interest. The strategic framework for an aquatic animal health and welfare programme therefore encompasses all aquaculture activities. For the purposes of this framework, the term aquatic animal refers to fish, shellfish and any other group of animals usually occurring in the aquatic environment, with the exception of mammals and birds.

3. Context and Scope

The purpose of this document serves to integrate existing, independently developed aquatic animal health frameworks from both the freshwater and marine sectors to ultimately provide an outline of an amalgamated national aquatic animal health plan. It first lists the objectives of the plan. This is followed by a brief description of activities required to meet these objectives. Detailed implementation plans for each action are outside the scope of this framework. However, some guidance is given on priorities and resource requirements.

4. Objectives

- To promote aquatic health, welfare and good farming practice.
- To safeguard the aquaculture industry and other users of aquatic resources from the adverse effects of aquatic animal diseases.
- To protect the health and well being of consumers of aquacultured products, and of users of the aquatic environment.
- To secure the integrity of aquatic ecosystems and environments.
- To enable safe and responsible international trade in aquaculture products.
- To empower people, both public and private sector, to make good decisions and create favourable outcomes in matters relating to aquatic animal health.
- To contribute towards fulfilment of the objectives of relevant international agreements and bodies to which South Africa is a signatory or member state, e.g. FAO, WTO and OIE.

5. Activities

5.1. Policy, Legislation and Enforcement

Policy, legislation and enforcement related to the institutional structure, legislative framework, operational legislative norms and standards and other formalised ways of promoting aquatic animal health.

5.1.1 Institutional Structure

The successful implementation of an aquatic animal health and welfare program will require various contributions and commitments from numerous support agencies and institutions according to their mandate and expertise. It is imperative that these efforts are coordinated to ensure well structured and cohesive participation toward a national aquatic animal health and welfare program without unnecessary duplication of effort. This can only be achieved if there is sufficient consultation among all stakeholders, all concerns have been recognised and addressed, communication is prioritised, and clear systems are in place for implementation. It is also important that mechanisms for identifying and correcting problems are in place and that everyone is able to participate in improving procedures. Ultimately, aquatic animal health policies, legislation and enforcement must empower people to achieve their objectives within this context. Appendix 1 provides a summary for the function of some of these groups as they currently exist with respect to aquatic animal health. Ongoing communication both within and between government departments, with industry, with other interested and affected parties, and with international bodies is extremely important. This activity has to be included formally in any national aquatic animal health plan. It

includes acting as focal point for aquatic animal health in relation to the World Organisation for Animal Health (OIE).

5.1.2 Legislative Framework

South Africa already has adequate legislation for addressing all issues relating to aquatic animal health and a summary of relevant legislation has been compiled by the steering committee (See Appendix 2). The primary challenge with current legislation is that it was not designed with aquaculture in mind. Often, the definition of an animal in the legislation excludes many aquatic animals, especially invertebrates. Bringing all aquatic animals into existing legislation will require the following actions:

- Consultation with those government departments primarily responsible for the existing legislation, and with legal experts, to find means of accommodating all aquatic animals.
- Where necessary, develop specific regulations under existing acts to address special requirements for aquatic animals.
- Define responsibilities for implementation.
- Provide support, especially training, to government officials tasked with implementation.
- Clear communication of all legislative aspects to everyone affected both public and private sector.
- Establish mechanisms for ongoing assessment, improvement and communication.

5.1.3 Operational Legislative Norms and Standards

In addition to the above, protocols and standards need to be developed specifically for aquaculture, addressing issues such as disease free zones and stock movements, emergency response and preparedness, quarantine, listing of diseases, disposal of mortalities, decontamination, biosecurity, operation of harvesting vessels and processing facilities and compliance and enforcement.. This includes revision of existing permit conditions. The development process will include the following actions, iterated for each new protocol, standard or change in permit conditions:

- Consultation with all government departments potentially affected or expected to contribute to implementation.
- Drafting a document for discussion.
- Obtaining inputs from all interested and affected parties, including industry.
- Defining responsibilities for implementation.
- Training of everyone involved in implementation, both public and private sector.
- Establishment of mechanisms for ongoing assessment, improvement and communication.

5.2. Services and Facilities

Services relating to aquatic animal health include diagnosis of causes of disease and mortality, preventive medicine in the form of health management programs, stock inspections, biosecurity and health examinations for stock movements and certification, and production animal medicine aimed at improving economic gains. For a service to be effective, it must address the needs of the client, produce a reliable and relevant outcome, and add value. This requires skilled and motivated people in suitably equipped facilities operating within systems that promote rapid delivery of quality outcomes. It is important to note that service delivery is, in many ways, motivated by policy, legislation and enforcement requirements, and that development of effective services are reliant on training and research.

5.2.1 Available capacity and infrastructure for service provision

There is a need to critically evaluate existing service capacity, so as to best utilise available resources. Although it is entirely possible to survey existing capacity internally, it would be beneficial to use the OIE's Performance of Veterinary Services (PVS) system for this purpose, as it is objective and the results can be benchmarked. The OIE evaluation of the PVS is designed to assist veterinary services to establish their current level of performance, to identify gaps and weaknesses in their ability to comply with OIE standards, to form a shared vision with stakeholders (including the private sector) and to establish priorities and carry out strategic initiatives.

5.2.2 Services and logistics required to implement a national aquatic animal health and welfare program.

In the context of the objectives of this framework, service delivery requirements can be summarised as follows:

Enabling the availability of effective services.

Although it can be argued that government should ensure availability of services as part of creating an enabling environment, industry has a responsibility to cover the cost of services, especially where services do not directly relate to disease management on a national or international level. Veterinary expenses are a legitimate business cost for any animal production facility, in the same way as feed costs or utilities. Whereas mature industries are usually able to afford sophisticated animal health services, new entrants often require more basic assistance, but find it difficult to pay for these. A solution is to define a set of basic aquatic animal health services, available at or below cost, from facilities which receive funding from government to provide such services.

Quality and competence assurances of services and service providers.

Many of the requirements for effective service provision are contained within existing legislation or other procedural documents. The most relevant of these is the Veterinary and Paraveterinary Professions Act (No 19 of 1982) which provides for registration of veterinarians and related professions with the South African Veterinary Council. In addition, mechanisms by which laboratories can accredit are well established. It is only necessary to document the position of aquatic animal health service providers within these procedures.

Disease control on a national or international basis.

Testing for certain diseases in a systematic way is important for promoting aquatic animal health nationally, both in aquaculture and natural environments, for protecting human health, and for facilitating trade through the certification of health for import, export and translocation of aquatic animals. Such testing can also form part of programs to control or eradicate diseases. Historically, government has funded testing and control programs of strategic importance and this should be explored for aquatic animals.

Maintaining services of strategic importance.

Within a commercial service delivery environment, the cost of a service is partly related to the demand. Laboratory testing can usually only be offered at an affordable level if a large volume of samples is processed on a regular basis. In addition, the necessary investment in equipment and skills development can only be justified for many and frequent samples. This situation is further complicated by the difficulty of maintaining competence when exposure to new samples is limited.

Unfortunately, this means that important and highly necessary tests are frequently not readily available.

There are two ways of overcoming the problem. The first is for government to improve capacity and training within existing state veterinary services and further fund capacity within a specialist reference centre. The second is to create an alliance with an organisation which has necessary capacity. This may be either an international partner or a local body which does not usually work with aquatic animal health, for example medical laboratories.

Maintaining reference facilities.

Whatever the structure and complexity of veterinary services for a sector, a reference laboratory is required. The role of the reference laboratory will include:

- Functioning as a centre of expertise in diagnostics.
- Standardisation of diagnostic techniques and validating results from other laboratories.
- Providing internationally acceptable results for certification of imports and exports.
- Providing assistance and expert advice on topics linked to surveillance and control.
- Scientific and technical training.

The reference laboratory should ideally not limit its activities to reference functions, but also offer a wider range of services, allowing the skills and systems within the laboratory to be maintained. Typically, the reference laboratory will attract most of the samples when an industry is small and cannot support a large community of service providers. As the industry grows, more service providers will become available due to increased demand. The reference laboratory should not present unfair competition to such service providers.

Emergency response and preparedness

It is crucial to identify capacity to respond to unstructured events, such as disease emergencies. As far as possible, existing capacity should be identified and cooperation fostered, rather than duplicating or diluting efforts. Creation of specific capacity may be necessary. In each of these cases, it is not possible to accurately anticipate when and how often events will occur or their extent. However, it is possible to prepare through having standard response plans in place, including identification of response teams representing various institutions. In preparation for disease emergencies, teams should rehearse and refine the response plans by participating in simulations. Relevant areas include:

- Risk assessments for new and existing activities.
- Investigation of the appearance of diseases with an unknown cause and response to disease emergence.
- Investigation of mortality events in aquatic animals, especially natural populations.

5.3. Human Resources and Capacity Development

The purpose of training, in the context of this framework, should be to empower people to make good decisions that lead to positive outcomes, to increase their confidence and competence, and to improve their productivity with respect to providing quality aquatic animal health and welfare services in support of the local aquaculture industry. Training has to meet a need and the need will determine both content and method.

General training programs likely to attract relatively large numbers of students are best conducted by tertiary educational institutions such as universities. Training in the basics of aquaculture husbandry, biosecurity and health management will have an enormously beneficial effect on national aquatic animal health, thereby decreasing the need for more expensive and less effective diagnostic and treatment interventions. Training need not be limited to aspects directly related to animal health, but can include a variety of topics which may be useful, even including legal, financial and environmental issues. There is sufficient expertise within South Africa to provide the technical content of such programs, as well as to carry out training.

The implementation of effective extension services will be critical in determining the success of aquaculture development. Although training of prospective farmers, government officials and other interested parties is important, the training of extension officers should enjoy the highest priority. A good extension officer can be pivotal in preventing disease outbreaks on both a farm and at regional level.

Training targeting specific functions, such as those relating to policy, legislation and enforcement matters, should be included in all implementation efforts. This training is aimed at a specific audience and each program is likely to have a limited duration. It may be best conducted in house, although partnerships with educational institutions should be explored.

Specialist training can combine course work with practical exposure under supervision of an experienced professional. Although such training will involve relatively few individuals, it should nonetheless be structured in partnership with educational institutions. It should also be noted that existing regulations may apply to specialist training, especially for professionals who are required to register with a statutory body.

Procedures are necessary to standardise the content of training programs, as well as criteria for successful completion. All training programs have to be developed to meet well defined and explicit outcomes. For the purposes of this framework, these will be defined as an integral component of each stage of implementation.

5.4. Research and Development

There is considerable overlap between research needs for a successful aquatic animal health plan and other initiatives. Specific goals for research that promote aquatic animal health should be identified. These should be aimed at solving existing problems in aquaculture as well as preventing future losses due to disease. Relevant areas for exploratory research include a) improving existing diagnostic techniques, (b) understanding the mechanisms of virulence of major pathogens so that control strategies can be devised, (c) developing vaccines and immunomodulators as preventative measures, (d) pharmacological studies needed for the approval to use therapeutants for disease control, (e) Targeted disease surveillance and (f) defining basic geographic units for assessing the disease risks associated with translocation and trade of aquatic animals and their products. These efforts should be supported by a variety of public and private funding sources. Research results must add value and projects need to develop people who can contribute to future growth of the aquaculture industry. As such, research and training are closely related.

The establishment of a cooperative research network among the respective government agencies, universities and the private sector is critical to the successful implementation of this aquatic animal health and welfare programme, the eradication and control of aquatic animal diseases and the delivery of services to the aquaculture industry in South Africa.

Appendix 1: Mandate and Responsibility of Support Agencies and Institutions.

The following accounts for the function of each group as it currently exists pertaining Aquatic Animal Health. Functions that are supported by law or regulation are so noted.

Directorate Animal Health, DAFF

The Animal Diseases Act, 1984 (Act No. 35 of 1984) aims to “provide for the control of animal diseases and parasites, for measures to promote animal health and for matters connected therewith” and grants DAFF broad authority to prevent the spread of contagious or infectious diseases of animals (the act defines an “animal” as any mammal, bird, fish, reptile or amphibian which is a member of the phylum vertebrate, including the carcass of any such animal).

To accomplish this basic mission, DAFF (a) promulgates and enforces appropriate regulations, including quarantine to prevent introduction of disease into aquaculture facilities; (b) certifies that shipments of aquatic animals from South Africa meets the health requirements of receiving countries; and (c) provides the infrastructure, i.e., the diagnostic capability both in the field and laboratory to support these responsibilities. DAFF is also involved in licensing and accrediting of private veterinarians involved in aquaculture.

Department of Environmental Affairs

The role of DEA in Aquatic Animal Health is to investigate fish kills as they occur in the freshwaters of the country, in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998). MDE coordinates responses to fish kill events. In doing so, they may enlist assistance from other agencies and groups. DEA usually conducts the primary on-site investigation, with periodic help from DAFF. To conduct diagnostics on specimens collected, DEA draws from a pool of local, provincial, and University laboratories to process samples in a timely manner. These procedures are followed with both episodic and chronic kills.

DEA also plays a role of evaluating water quality problems, particularly problems with surface waters or ground water quality. DEA is the lead agency for investigations of water quality problems that are traced to permitted dischargers or other pollution sources. DEA uses pollution monitoring and prevention tools to minimize risks to aquatic animal health from poor water quality.

With the increasing interest in aquaculture across the country, DEA personnel believe that they should remain involved in the aquacultural response network. However, due to time and personnel constraints, DEA would like to see the DAFF take the lead in investigating kills occurring in the private sector. DEA personnel would be willing to assist DAFF in developing and maintaining an effective response to kills occurring in private and commercial aquaculture.

Department of Health

The role of the Department of Health (DOH) begins when finfish and shellfish are processed or brought to market to determine whether they are safe for human consumption. Therefore, their main responsibility is for public health, not animal health.

DAFF Branch Fisheries Chief Directorate: Aquaculture and Economic Development (The Old MCM)

The main objective of this Branch is to protect wild stocks of fish, while supplementing those stocks with healthy fish reared in fish culture facilities. The Branch performs field diagnostics, taking into account environmental factors, as well as, disease organisms. The Branch also has the Sea Point Research Aquarium that has diagnostic capabilities. Field personnel and staff are

responsible for providing technical assistance and training to the public on fish health and the maintenance of healthy waterways.

The Branch regulates aquaculture activities in the country. It requires a permit to breed, propagate, and sell any species of game/ornamental, freshwater, and marine fin and shell fish protected by law or regulation. It has the authority to promulgate regulations governing the release, possession, sale, shipment, and identification of every game/ornamental, freshwater, and marine fin and shell fish handled under the fish breeder's permit. It establishes reasonable monetary compensation for aquatic species destroyed by the activities of man. It has the authority to require certification that fish are free of infectious diseases, pathogens, parasites, or exotic pest species.

Provincial Departments of Agriculture (State Vets)

Directorates of Animal Health and Veterinary Public Health (DAFF) work in close collaboration with the Provincial Department of Agriculture (PDA's) Veterinary Services who are responsible for implementation of policies and programmes according to Animal Disease Act, 1984 (Act No. 35 of 1984). The collaboration is to ensure effective disease monitoring and control by developing and auditing the policy, norms, standards and guidelines for animal disease control and surveillance systems, animal disease and veterinary public health schemes, meat hygiene and food safety inspection services, and veterinary laboratory services. Internally, the Veterinary Services of the PDA's are responsible for the implementation process.

Onderstepoort Veterinary Institution (OVI) of the Agricultural Research Council (ARC)

The ARC-OVI is a flagship institution of the Agricultural Research Council and plays an important role in the diagnostic services to assist the DAFF to maintain the health of our national herd and wildlife. The ARC-OVI is the collaborating centre for both the Office International des Epizooties (OIE) surveillance and control of animal diseases in Africa and the Food and Agriculture Organisation (FAO) of the United Nations for the emergency preparedness for most transboundary animal diseases for Africa. The ARC-OVI also provides a wide range of applied research and consultancy, diagnosis and surveillance on animal diseases to the National and Provincial Government and commercial customers.

Centre for Scientific and Industrial Research (CSIR)

CSIR is the leading scientific and technology research, development and implementation organisations in Africa. It undertakes chemical analysis of fish products for consumers' health in the private and public sectors. The CSIR laboratory is equipped to test for marine biotoxins in shellfish products in support of the Shellfish Monitoring Programme.

South African Universities

University functions as a high-level teaching and research facility only, with training, extension services and no commercial production. There are a number of existing collaborations between the South African Universities and the various departments. One of these collaborations is the Western Cape Provincial Department of Environmental Affairs & Development Planning (DEA&DP) with the University of Stellenbosch and Aquaculture Institute of South Africa (AISA) which identified the need to develop measures and guidelines to manage and promote sustainable aquaculture in the Western Cape.

Appendix 2: Summary of legislation and regulations relevant to animal health in South Africa Prepared for the second meeting of the Animal Health and Welfare Steering Committee to be held 8 May 2009 – Original Document Prepared by Dr. Anna Mouton (Amanzi Biosecurity)

1 Animal Diseases Act, 1984 (No 35 of 1984) and Animal Disease Regulations

- 1.1 "To provide for the **control of animal diseases** and parasites, for **measures to promote animal health**, and for matters connected therewith."
- 1.2 Responsibility of the **Department of Agriculture**, specifically the director of the Division of Veterinary Services. The director must be a veterinarian.
- 1.3 "**Animal** means any mammal, bird, fish, reptile or amphibian which is a **member of the phylum vertebrates**, including the carcass of such an animal." Note that this excludes invertebrates.
- 1.4 "**Controlled animal disease** means any animal disease in respect of which any general or particular **control measure** has been described, and any animal disease which is **not indigenous** or native to the Republic." Note that introduced diseases are automatically eligible for control.
- 1.5 "**Controlled veterinary act** in relation to any animal or thing, means the **isolation, detention, inspection, testing, immunization, observation, sampling, marking, treatment, care, destruction or any other disposal of**, and the carrying out of any operation or post mortem examination, and the rendering of any service pertaining specially to the veterinary profession" for purposes of disease control.
- 1.6 Control measures include both general measures and ones aimed at specific diseases, and may be applied locally or to the whole country. Control measures include **restrictions on slaughter and movement** of animals, and **decontamination** of facilities.
- 1.7 The act allows for delegation of control measures to non veterinarians.
- 1.8 The act makes provision for **establishment of quarantine stations**. Any place affected by disease can be designated a quarantine station for purposes of disease control.
- 1.9 Import controls to prevent disease introduction are set out in the act. This includes seizure and disposal of illegal imports.
- 1.10 Powers of the director include assumption of control over land, entry and inspection, and seizure. Seized animals may be slaughtered. The owner may be eligible for costs relating to any of these actions.
- 1.11 Owners may apply for **compensation** for the loss of animals or things as result of control measures. Rates of compensation vary between 50 and 100%. Compensation will be offset against any costs for which the owner is eligible.
- 1.12 The act makes provision for the establishment of animal health schemes. These schemes are usually aimed at controlling specific diseases, for example tuberculosis.
- 1.13 "**Any owner or manager** of land on which there are animals, and any owner in respect of animals, shall... take all reasonable steps to **prevent the infection of the animals with any animal disease or parasite and the spreading thereof**", as well as steps "necessary for the eradication of animal diseases and parasites on the land or in respect of the animals." This applies to all diseases, not only those which are controlled.
- 1.14 The act specifically protects **confidentiality**.
- 1.15 Regulations under the act make provision for notifiable and controlled diseases. A notifiable disease must be reported, but will not necessarily attract control measures.

1.16 The owner has a responsibility to **report controlled diseases to the government**, as has the attending veterinarian. The owner of animals infected with a controlled disease is obligated to **inform his neighbours, any potential buyers** of the animals and anyone who has already purchased animals from him within the preceding thirty days.

1.17 Act and regulations available at <http://www.doa.agric.za/> under veterinary services.

2 **Meat Safety Act, 2000** (No 40 of 2000)

2.1 "To provide for measures to promote meat safety and the safety of animal products; to establish and maintain essential national standards in respect of abattoirs; to regulate the importation and exportation of meat; to establish meat safety schemes; and to provide for matters connected herewith."

2.2 Responsibility of Department of Agriculture Forestry and Fisheries (DAFF).

2.3 Does not currently cover aquaculture products. Meat inspection at abattoirs not only serves to protect public health, but also aids surveillance of animal diseases.

3 **Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947** (No 36 of 1947)

3.1 "To provide for the appointment of a Registrar of Fertilizers, Farm Feeds and Agricultural Remedies, and for the **registration** of fertilizers, farm feeds, agricultural remedies, **stock remedies**, sterilizing plants and pest control operators, and to **regulate or prohibit the importation, sale, acquisition, disposal or use** of fertilizers, farm feeds, agricultural remedies and stock remedies, and to provide for the designation of technical advisers and analysts, and to provide for matters incidental thereto."

3.2 "**Stock remedy** means a substance intended or offered to be used in connection with domestic animals, livestock, poultry, **fish** or wild animals, for the **diagnosis, prevention, treatment or cure of any disease**, infection or other unhealthy condition, or for the maintenance or improvement of health, growth, production or working capacity, but **excluding any substance in so far as it is controlled under the Medicines and Related Substances Control Act** (No 101 of 1965)."

3.3 In practical terms, the act covers substances available without prescription. Stock remedies, whether local or imported, have to be registered.

3.4 The act is the responsibility of the **Department of Agriculture**.

4 **Medicines and Related Substances Control Act, 1965** (No 101 of 1965) and **Medicines and Related Substances Control Amendment Act, 1997** (No 90 of 1997)

4.1 "To provide for the **registration of medicines intended for human and for animal use**, and for the registration of medical devices, and for the establishment of a Medicines Control Council, for the control of medicines, scheduled substances and medical devices, for the control of manufacturers, wholesalers and distributors of medicines and medical devices, and for the control of persons who may compound and dispense medicines, and for matters incidental thereto."

4.2 The act is the responsibility of the **Department of Health** and is implemented through the **Medicines Control Council**. The Council, in considering whether a medicine is suitable for use for its intended purpose, assesses its relative risk against the benefits.

4.3 A **medicine** is defined as any substance or mixtures of substances used or purporting to be suitable for use of manufacture or sold for use in restoring, correcting, or modifying any somatic or psychic or organic function in man, and **includes any veterinary medicine**. All veterinary medicines must be registered in terms of the act excluding stock remedies registered in terms of Act 36.

5 Foodstuffs, Cosmetics and Disinfectants Act, 1972 (No 54 of 1972)

5.1 "To control the sale, manufacture and importation of foodstuffs, cosmetics and disinfectants, and to provide for incidental matters."

5.2 Responsibility of Department of Health.

5.3 Intersects with animal health because of residues and other contaminants.

6 Animals Protection Act, 1962 (No 71 of 1962) and Societies for the Prevention of Cruelty to Animals Act, 1993 (No 169 of 1993)

6.1 "Animal means any equine, bovine, sheep, goat, pig, fowl, ostrich, dog, cat or other domestic animal or bird, or any wild animal, wild bird or reptile which is in captivity or under the control of any person."

6.2 Responsibility of Departments of Justice and Agriculture respectively.

6.3 Covers all aspects of cruelty to animals, including "being the owner of any animal, deliberately or negligently keeps such animal in a dirty or parasitic condition or allows it to become infested with external parasites or fails to render or procure veterinary or other medical treatment or attention which he is able to render or procure for any such animal in need of such treatment or attention, whether through disease, injury, delivery of young or any other cause, or fails to destroy or cause to be destroyed any such animal which is so seriously injured or diseased or in such a physical condition that to prolong its life would be cruel and would cause such animal unnecessary suffering."

7 Veterinary and Paraveterinary Professions Act, 1982 (No 19 of 1982)

7.1 "To provide for the establishment, powers and functions of the **South African Veterinary Council**, for the **registration of persons practising veterinary professions** and paraveterinary professions, and for control over the practising of veterinary professions and paraveterinary professions, and for matters connected therewith."

7.2 Responsibility of **Department of Agriculture**.

7.3 "**Animal** means **any vertebrate** other than man."

7.4 "No person shall in any manner whatsoever practice a veterinary profession or a paraveterinary profession unless he is registered or deemed to be registered in terms of this Act to practice the profession concerned."

7.5 "For the purposes of this Act the **practising of a veterinary profession** means, for gain, directly or indirectly, whether for own account or within the scope of employment with any employer, including the State, **supplying or selling any veterinary medicine**"... "or **rendering any service** which in terms of the rules is deemed to pertain specially to a veterinary profession."

7.6 **Veterinary services** include "performing any act which has as its purpose **diagnosing, treating or preventing any pathological condition** in any animal or which constitutes a surgical operation on any animal and is deemed in terms of the rules to pertain specially to a veterinary profession."

- 7.7 The act regulates dispensing of medicine in that "a person who is registered or deemed to be registered in terms of this Act to practise a veterinary profession, may personally **compound or dispense any medicine** which is prescribed by himself or by any other person with whom he is in partnership or with whom he is associated as a principal or an assistant or a locum tenens, for use in the **treatment of an animal which is under his professional care.**" Note that a veterinarian may not provide medicine for animals which are not under his care.
- 7.8 "**No person shall**, except for the purposes of carrying out his functions or performing his duties under this Act or for the purpose of legal proceedings under this Act or when required to do so by any court or under any law, **disclose to any other person any information** acquired by him in the carrying out of his functions or the performance of his duties under this Act and relating to the business or affairs of any person registered or deemed to be registered in terms of this Act." This protects confidentiality of clients.
- 7.9 Paraveterinary professions include veterinary nurses, animal health technicians and veterinary laboratory technologists.

8 Other legislation

- 8.1 A list of all legislation which may impact on veterinarians can be found at the Faculty of Veterinary Science library site <http://www.ais.up.ac.za/vet/vetacts.htm>.
- 8.2 Animal disease legislation and controls can be found at <http://www.doa.agric.za/> under Division of Veterinary Services.
- 8.3 More information is also available at the South African Veterinary Council site, <http://www.savc.co.za/>, including the rules pertaining to the veterinary profession.

Appendix 3: Summary Report of Aquatic Animal Health Capacity in South Africa - Prepared for OIE - 2009

Report 1. National policies and legal frameworks on aquatic animal biosecurity

- i. *National competent authority designated or responsible for national aquatic animal biosecurity policy and planning.*

Biosecurity has been fragmented between two ministries of Agriculture and Environmental Affairs and Tourism. A new ministry has now been formed, namely, Agriculture, Forestry and Fisheries.

- ii. *Responsibilities of the agencies* - Previously, marine aquatic biosecurity was the responsibility of Marine and coastal management, DEAT. With the current changes in government, the marine aquaculture management group will be moving to the newly formed Department of Agriculture Forestry and Fisheries and hence this will be the new agency responsible for freshwater and marine biosecurity.

- iii. *Brief description of how issues impacting national aquatic animal biosecurity are being handled –*

There are two challenges regarding the national biosecurity. Firstly the legislation does not adequately address this and there is a shortage of capacity and experience in aquatic animal health issues

- iv. *Whether subnational entities play a role in setting national aquatic animal biosecurity policy? If so what are their roles? –*

The implementation of the marine aquaculture policy is stakeholder and needs driven. With this in mind, the steering committees tasked with implementing this policy are compiled of national government officials; provincial government officials and private industry related stakeholders. These steering committees are responsible for developing policies and protocols to address needs and to effectively ensure that the marine aquaculture policy achieves its objectives.

- v. *Whether current policy for aquatic animal biosecurity is - a) adequate for preventing the entry and spread of exotic aquatic animal pathogens –*

Current policy for aquatic animal biosecurity is inadequate for preventing entry and spread of exotic animal pathogens due to shared and often neglected responsibilities, the shortage of experienced and qualified officials and the paucity of information regarding aquatic animal diseases of this country and region.

b) adequate for controlling serious diseases within country – Legislation is inadequate and there is a capacity challenge.

c) effectively implemented – No.

- vi. *Which of the following elements are addressed in national policies on aquatic animal biosecurity –*

None

Legislative Framework.

Currently only fish are covered under the Animal Diseases act. Four salmonid viruses are the only reportable aquatic animal diseases currently recognised in RSA.

The Marine living resources act makes the provision for the minister to declare a disease of marine organisms as notifiable. Legislation is currently inadequate to cover aquatic animal diseases but forms part of the broader veterinary and fisheries legislation and regulations.

Current legislation needs review to include aquatic animal diseases.

Report 2. Veterinary institutional infrastructure and capacity on aquatic animal biosecurity

There is limited capacity/ activities and support in the following areas, disease diagnosis, contingency planning, extension services, compliance/enforcement, research, training and expertise.

Compiled:

**Dr TV Modungwa (Deputy Director: Disease Control
Directorate of Animal Health)**

Dr K Christison (Mariculture Scientist)

Appendix 4: Windhoek Declaration On An Aquatic Biosecurity Framework For Southern Africa

On 13-14 October 2009, 32 participants from 8 countries¹ of the Southern Africa Development Community (SADC) and 2 countries of the East Africa Community (EAC)² representing fisheries and veterinary agencies and universities³ and 11 resource persons and representatives from several regional and international organizations and a veterinary institute⁴ participated in a High Level Scoping Meeting of Regional Fisheries and Veterinary Authorities towards developing an Aquatic Biosecurity Framework for Southern Africa.

The participants affirmed the importance of aquaculture and fisheries as significant opportunities for economic growth, poverty reduction and improved food security in Africa, but reiterated that better management, policies, capacity, investment and a regionally harmonized approach to biosecurity⁵ risk management are needed to support responsible development. The region's considerable aquatic resources, including major river systems such as the Zambezi and Nile, present an ideal opportunity for the African region's aquaculture and fisheries sector to contribute to its own food security, nutritional well being, poverty reduction and economic development with, under appropriate management, minimum impact on the environment and maximum societal benefit.

The participants expressed concern about the alarming spread of the serious fish disease, Epizootic Ulcerative Syndrome (EUS), in the Zambezi River system, since late 2006, and the significant social and economic impacts of the disease, particularly among poor and vulnerable communities that are dependant on these aquatic resources for food and income.

The outbreak of EUS in Southern Africa has highlighted a serious lapse in regional aquatic biosecurity management, which now requires urgent and concerted action for improvement. Improvements are needed in the development of appropriate and effective policy and regulatory frameworks and risk management strategies and their efficient implementation at community, national and regional levels. Intra-regional trade and shared waters mean that a coordinated and cooperative approach to aquatic biosecurity is essential. Harmonization of national policies and regulatory frameworks on aquatic biosecurity is paramount. Impacts on livelihoods of fishers and farmers caused by EUS need to be better understood, and practical coping strategies identified and supported.

The participants expressed serious concern about the risk of EUS moving out of the Zambezi River system to other major river systems in Africa, such as the Nile, and the potential threat to the livelihoods of millions of people dependent of river resources and economic impacts, including risks to domestic food supplies and valuable export industries such as the Nile perch. Concerted

¹ Angola, Botswana, Malawi, Mozambique, Namibia, South Africa, Zambia and Zimbabwe. Tanzania should be included but did not participate in the meeting.

² Kenya, Uganda

³ University of Nairobi (Kenya), Makerere University (Uganda) and University of Zambia

⁴ FAO, OIE, Norwegian Veterinary Institute, WorldFish Center

⁵ Biosecurity is strategic and integrated approach that encompasses policy and regulatory framework for analyzing and managing relevant risks to human, animal and plant life and health, and associated risks to the environment.

preventative and awareness raising measures are required by regional countries, with assistance and cooperation from the international community.

The participants recognized and appreciated the work of the FAO since the first appearance of EUS in the Zambezi River, contributing to national capacity building in disease diagnostics, surveillance, risk assessment and primary aquatic health management in Southern African countries. The contributions by OIE on improving veterinary capacities in the regional countries were also recognized. Such cooperation should continue to be strengthened in support of capacity building for implementation of improved aquatic biosecurity measures for the region.

The participants unanimously agreed that biosecurity is of prime importance to fisheries and aquaculture development, particularly in shared watersheds like the Zambezi River basin and others in the region. It safeguards animal health, protects biodiversity, promotes environmental sustainability and enhances food safety. The livelihoods of many people depend on fisheries and aquaculture, including some of the most vulnerable in the region. The Windhoek participants have prepared a framework for action; now political will and resources are necessary for implementation.

The participants agreed that the primary responsibility for actions to address this emerging risk rests with the governments of the region. However, FAO, in partnership with OIE and its Regional Animal Health Centers in Africa, and other agencies such as the WorldFish Center and the National Veterinary Institute of Norway had been requested to support a regional cooperative programme to assist in implementing the regional aquatic biosecurity programme, and take preventive measures to reduce risks to fisheries, aquaculture and livelihoods from further spread of this fish disease to other river systems in Africa.

The participants further recommended that the outcome of this meeting and the current status of the EUS pandemic in Zambezi River system be communicated to Fisheries Secretariats of SADC and NEPAD. The meeting requested FAO to facilitate presenting the declaration to the upcoming Fisheries Ministerial Meeting of the Southern African Development Cooperation (SADC) to be held in November 2009 in Windhoek, Namibia. The Honorable Minister of Fisheries of Uganda would also present the outcome to the next meeting of the Council of Ministers for Lake Victoria Fisheries Organization to be held on 5th-6th November in Nairobi, Kenya to raise profile and consensus on actions to improve aquatic biosecurity in Africa.

The participants thanked the Government of Namibia for hosting the meeting and declared their commitment to continue to cooperate in development and implementation of aquatic biosecurity framework, including a regional emergency action plan for Southern Africa.

Compiled by Rohana Subasinghe –FAO (14 October 2009)