

# DISCUSSION DOCUMENT ON THE REGULATION OF ALIEN AND INVASIVE SPECIES

*By Johann Malan*

This document looks at the various pieces of legislation that could possibly be used to regulate alien and invasive species. The basic premise of this document is that existing legislation should be used as far as possible to address the matter for the time being by way of regulation, rather than to wait till legislation dealing specifically with the matter is passed, as this may take a very long time.

The distinction between alien species and invasive species is something that we need to consider. The term *alien invasive species* seems to indicate that invasive species are always alien, which may not be the case. Similarly, alien species may not necessarily pose the same risk to ecosystems as invasive species. It may therefore be useful to consider talking of *alien species* and *invasive species*, and to deal with each group on its own merits, rather than to lump them together.

## **The Nature Conservation Ordinance No 4 of 1975**

This Ordinance deals with game parks and nature reserves, communal conservancies, wild animals, problem animals, fish in inland waters and indigenous plants. From its ambit, it would seem that alien and invasive species should resort under the Ordinance insofar as they threaten indigenous fauna and flora. Sadly, the Ordinance does not specifically refer to AIS, with the result that we would have to interpret its provisions to see if they could be used to cover AIS (there are provisions that make it clear that the control and regulation of AIS would fall within the scope of the Ordinance), or if the Ordinance should be amended to reflect these concerns. It should also be kept in mind that work is proceeding on a Parks and Wildlife Bill. It may be useful to make inputs to Ben Beytel and the drafting committee of that Bill to see to it that AIS is adequately covered. This would be the most appropriate way to proceed, provided of course that the Bill is finalised and passed in the near future.

With regard to game parks and nature reserves, the Ordinance deals with the proclamation of these, and the activities that may take place in them. For instance, it prohibits hunting and the picking of indigenous plants in game parks or nature reserves.

### *Wild animals*

The chapter on wild animals (Chapter III) mainly contains provisions on the classification of game (protected, specially protected, huntable, etc.), hunting of game and game birds, the ownership of game, and the handling of the products of hunting. It does not deal at all with the issue of animal AIS.

The Ordinance also refers to the hunting of exotic game, which is defined as *any vertebrate (including any bird, fish or reptile) whether kept or bred in*

*captivity or elsewhere, belonging to non-domestic species the habitat of which is not in Namibia.*

### *Problem animals*

Chapter IV authorises the Minister to declare certain animals as '*problem animals*'. The Ordinance does not specify what may be regarded as a problem animal. The usual meaning is that of an animal, for e.g. a lion that kills either people or livestock. It may however be possible to declare alien or invasive animal species as problem animals, with the result that the provisions of Chapter IV would come into play.<sup>1</sup> Once declared a problem animal – either throughout Namibia or within a particular part - the owner or lessee of land may at any time hunt the problem animal on the land, or engage in or request another person to hunt the problem animal. Nature conservators or any person authorised by the Minister may hunt the problem animal, even going onto land without the permission of the owner or lessee (section 54(2))

Under section 56, the Minister may subject to conditions provide any person who is authorised by this Ordinance to hunt problem animals with aids or apparatus in order to hunt the problem animal.

Section 62 authorises research with regard to the control of problem animals, which research would allow for the hunting, capturing or killing of these animals by any chemical, mechanical or biological means.

### *Fish in inland waters*

Chapter V deals with fish in inland waters. Again there is no provision dealing with the control of alien and invasive species. However, section 66 prohibits the placing or release of any fish in inland waters (except in aquariums and ornamental dams.) This section may be a means to prohibit the introduction of alien and invasive inland fish species. The rest of the chapter deals with angling, but does not describe measures of control of introduced fish.

### *Indigenous plants*

Chapter VI covers indigenous plants. Protected indigenous plant species are contained in Schedule 9, which schedule may be amended from time to time. The Chapter then regulates picking and transportation of protected and indigenous plants, the sale, donation, export and removal of protected plants. Nothing is said about protecting indigenous or protected plants from alien or invasive species.

### *General Powers of Minister*

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<sup>1</sup> Section 52 states that the provisions of this Chapter do not ordinarily apply in game parks, unless the Minister has made a declaration in this regard.

The general powers of the Minister, contained in section 78, are more tailored to the control and regulation of AIS. According to this section, the Minister may:

- (b) Take the measures which the Minister may deem necessary or desirable in connection with the propagation and preservation of wild animals, exotic game, fish and plants.*
- (c) Take the measures which the Minister may deem necessary or desirable for the destruction, decrease or elimination, whether in general or in any particular area, of any problem animal or any other species of wild animal, exotic game, fish or plant, which may be harmful or detrimental to the existence of any other species of wild animal, fish or indigenous plant or which, in the Minister's opinion, may present a threat from the point of view of farming or stock diseases.*
- (d) Take the measures which the Minister may deem necessary or desirable for the import or transfer from one area to another of wild animals, exotic game, fish and plants.*
- (e) Take the measures which the Minister may deem necessary or desirable for the capture of wild animals, exotic game, fish or the collection of plants;*
- (f) ...*
- (g) Take any measures whatsoever the Minister may deem necessary or desirable for research in connection with wild animals, exotic game, fisheries and plants;*
- (h) Take the measures which the Minister may deem necessary or desirable for the making of surveys and the conducting of investigation in connection with wild animals, exotic game, fish and plants;*
- (i) ...*
- (j) Take the measures which the Minister may deem necessary or desirable for the control of aquatic vegetation in waters;*
- (k) Render any assistance whether financial or otherwise to anybody, society or person which or who in the Minister's opinion promotes the preservation of wild animals, fish, indigenous plants or nature in general;*
- (l) Take the measures which the Minister may deem necessary or desirable for the better carrying out of the provisions or purposes of this Ordinance in general without limitation of the generality thereof by matters mentioned specifically in this section.*

In addition, under section 84(1) (s), the Minister may issue regulations with regard to the regulation of the import, cultivation and control of any plant, whether it is an indigenous plant or not, which, in the opinion of the Minister, may be detrimental to, or create less favourable conditions for, any wild animal, fish or indigenous plant. Under subsection (x), the Minister may make regulations for the preservation of game, wild animals, fish and indigenous plants in general or any species of game, wild animal, fish or indigenous plant.

Considering the wide scope of these provisions, it is very clear that the Minister has powers with regard to alien and invasive species. It is my suggestion that we should work on regulations under the mentioned sections

to control AIS, because these regulations would clearly not fall outside the scope of the Minister's powers. We should just make it clear which sections are being used and state the purpose why there is a need for regulations to control alien and invasive species. It would also be a simple matter to include functions with regard to AIS under the powers and functions of nature conservators and honorary nature conservators (section 81)

I would suggest that we work with this Ordinance, mainly because its scope is so broad, encompassing animals, plants and fish.

### **The Forest Act No 12 of 2001**

The Forest Act is another Act falling under the jurisdiction of the MET, which may be helpful in regulating IAS dealing with forests. The Forest Act does not define the term 'forest', which makes it difficult to determine which areas of Namibia are regarded as forests, or what the scope of the term is. It does however define 'classified forests', which means a forest reserve, a community forest or a forest management area, all of which having to be declared under the Act.

'Forest produce' is defined as *anything which grows or is naturally found in a forest and includes (a) any living organism or product of it, and (b) any inanimate object of mineral, historical, anthropological or cultural value.*

The purpose for which forest resources are managed and developed, including the planting of trees where necessary, is to conserve soil and water resources, maintain biological diversity and to use forest produce in a way that is compatible with the forest's primary role as the [protector and enhancer of the natural environment.

The Act provides for the establishment of a *Forestry Council*, which has to advise the Minister of Environment and Tourism on general forestry matters including legislation applicable to the forestry industry, the preparation and implementation of the national forest policy and on any matter that the Minister or a member of the Council has placed before the Council. The Council may also advise any person or an institution that requires information or assistance on forestry related matters. (Sections 2 and 3) It can be argued that the Council has the duty to advise either the Minister or private persons who requested information on matters pertaining to forests, which would include threats posed by alien and invasive species.

In addition, provision is made for the compilation and maintenance of a *national forest inventory* by the Director of Forestry, which must contain details about the total number of forest reserves and the area covered, the management plans for each classified forest, water catchment areas, etc. This inventory must also include information that is necessary to ensure the efficient management of forest resources. (Section 11) This inventory could play an important role in identifying areas where alien and invasive species are occurring within forest reserves, and this information should feed into forest management plans (also required under the Act) to control them.

Forest management plans (section 12) have to be prepared for each classified forest. They must describe –

- The area covered by the classified forest,
- The forest produce found in the forest and the utilisation of the forest produce
- The management objectives of the forest
- The measures required for the management of the forest, and
- Identify the person or body that will be appointed as the management authority for the classified forest.

Section 21 provides for the establishment of *protected areas* by the Minister of Environment and Tourism where the Minister is reasonably satisfied that it is necessary on any area of land to protect the soil, water resources, protected plants and other elements of biological diversity. In such a case, the Minister should reach agreement with the Minister of Lands, Resettlement and Rehabilitation, the Minister of Agriculture, Water and Rural Development, the owner or occupier of the land in question and in case of communal land, the chief or traditional authority for the communal land or the authority which is authorised by law to grant rights over the communal land. This agreement should cover:

- The need for creating the protected area
- The measures required for the protection of the protected area and the assistance to be given by the minister to achieve those measures, and
- The obligations of the owner or occupier of the land or the chief, traditional authority or the authority which is authorised to grant rights over the communal land to maintain and protect the forest resources of the protected area.

Again, this section can be utilised to take special measures to address alien and invasive species that are posing a threat to biodiversity in the protected area. Provision is made for the payment of compensation in case of substantially diminished utilisation of land as a result of the measures agreed upon.

The Act regulates cutting, destruction or removal of plants, as well as having provisions on afforestation and deforestation, which may have consequences for measures decided upon to eradicate alien and invasive species.

Part V of the Act regulates the use of forests and forest produce, while Part VI deals with the control and management of fires. Section 48 allows the Minister to issue regulations to implement the Act, including measures regarding forest protection, prevention of fires, and the protection of soil and water resources.

### *Considerations*

The Forest Act could play a useful role against alien and invasive species, particularly insofar as forests are concerned. By its nature, it would however

be restricted to plant species. A limiting factor is that forests are not defined; with the result that it is not exactly clear what the scope of the Act is.

Importantly, this Act falls under the jurisdiction of the Minister of Environment and Tourism, which may make it very useful for our purposes.

### **The Soil Conservation Act No 76 of 1969 (“SCA”)**

The objects of the Act are listed in section 2, which reads:

*The objects of this Act are to make provision for the combating and prevention of soil erosion, and for the conservation, protection and improvement of the soil, the vegetation and the sources and resources of the water supplies in Namibia.*

It is clear from the objects that the Minister (responsible for agricultural matters) may issue regulations regarding alien invasive plant species, as these regulations would serve to conserve, protect and improve the vegetation, soil and water sources and resources. From the outset, it should be remembered that the Soil Conservation Act is applicable to commercial land, but its provisions have been extended to a certain degree to communal lands by the Communal Land Reform Act.

The Soil Conservation Act authorises the Minister to issue directions on land, either in the Gazette, or directed at the owner<sup>2</sup> or occupier<sup>3</sup> of the land in question, which may include directions with regard to the

- Laying out of lands, the destruction of vegetation and the planting of trees in natural water courses (section 3 (b))
- The protection, temporary withdrawal from grazing and stabilizing of any soil surface including mountain slopes, and natural water courses which are or may become subject to erosion or denudation of vegetation (section 3 (e))
- The burning of pasturage (section 3 (h))
- The resting and utilization of pasturage (section 3 (i))
- The number of large and/or small stock which may be kept on the land
- Any other disturbance of the soil which creates or may create conditions which cause or may cause any form of erosion or pollution of water by silt or drift-sand (section 3 (m))

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<sup>2</sup> Owner is defined as the person in whose name the land is registered, or if the person is absent from Namibia, his/her agent or legal representative in the country. In the case of state land leased under a lease which contains an option in favour of the lessee to purchase the leased land, the lessee who has exercised his/her option to buy the land. Owner also includes any person who has bought state land that has not yet been registered in her/his name and the local authority where the land is under the control of a local authority. (Section 1)

<sup>3</sup> Occupier is defined as the owner, lessee of land or a person who otherwise has the management, charge, control or use of any land, whether the person resides on that land or not. It includes a person who has the right to cut trees or wood on any land, or removing trees or wood from the land. It also means a person who has the right to remove sand, stones or soil from any land, and also a person carrying on mining or prospecting activities. Local authorities may also be the occupier of land.

- Generally, as to any other matter whether or not connected with any matter referred to in paragraphs (a) to (m), inclusive, which he considers necessary or expedient for achieving the objects of the Act. (Section 3 (n))

This section would allow the Minister to regulate the destruction of vegetation and the planting of trees in natural water courses, both useful provisions with regard to plant AIS.

The Minister may order the construction of soil *conservation works* (section 4), and the Act provides for the payment of subsidies or grants for the defrayal of certain costs where a person has embarked on soil conservation works (section 6). *Soil conservation works* means any works constructed on and for the purpose of -

- The prevention of soil erosion or the stabilisation of land subject thereto; or
- The prevention of drift-sand or the stabilizing of land subject thereto; or
- The protection, conservation or improvement of the vegetation and the surface of the soil; or
- The protection, conservation or stabilization of any natural water source; or
- The prevention of the silting up of dams and the pollution of water by silt. (Section 1)

The power granted to the Minister to order the construction of soil conservation works does not seem to be directly applicable to AIS. There may however be situations in which it may be necessary to embark on soil conservation works to protect, conserve or improve the vegetation as a result of alien or invasive species. I suppose this may be relevant especially with regard to the containment or destruction of AIS, depending on the measures that would be most beneficial and effective under the circumstances.

An interesting possibility is the creation of soil *conservation committees* for certain areas (section 9). These committees have the duty to advise the Minister, owner or occupier of land on all matters relating to soil conservation and to perform such duties as the Minister may assign to it. (Section 11) This section would allow a specific AIS committee to be formed by the Minister to advise him or her on the matter.

Section 21 provides for penalties to be enacted for failure to comply with the provisions of the Act or the directions of the Minister.

### *Considerations*

It would appear that this Act could be used for regulations regarding alien and invasive species, as long as the matter falls under the objectives of the Act, namely to combat and prevent soil erosion, and to conserve, protect and improve the vegetation, soil and water sources and resources. This Act authorises the destruction of vegetation in watercourses, which can be used in

rivers infested with alien or invasive species. However, technical inputs are required to determine to what extent alien and invasive species would have an impact on the stated objectives of the Act.

The creation of soil conservation committees could help to address the issue of alien and invasive species. There is also the potential for tying this legislation with other projects that are aimed at conserving the soil, such as for instance water point committees or bush encroachment projects.

The drawback of this legislation, apart from the fact that it is administered by the Minister of Agriculture, Water and Rural Development, is that it does not deal with animals, except by regulating the number of livestock that may be kept on lands. It does not specifically deal with animal AIS, but it is suggested that where these become a problem which would lead to the objectives of the Act being violated, the Minister could prescribe measures to address the issue.

### **The Communal Land Reform Act No 5 of 2002**

The Communal Land Reform Act No 5 of 2002 also has provisions on soil conservation and protection of pastoral resources on communal lands. For instance, section 45 (1) of the Act authorises the Minister (of Lands, Resettlement and Rehabilitation) to issue regulations in relation to:

- (g) Matters relating to roads, fences, pounds, watercourses, woods and the use of water, wood, clay and stone on communal land;*
- (i) The combating and prevention of soil erosion, the protection of the pastoral resources and the limitation and control of the grazing of stock;*
- (k) Any other matter as the Minister may consider necessary or expedient for giving effect to this Act and for its administration.*

Section 45(1)(i) is very clear about the ambit of the regulations that the Minister may issue. Regulations may be aimed at the *combating and prevention of soil erosion* and the *protection of pastoral resources*, which is broad enough to cover aliens and invasive species – plants and animals. Subsection (k) could be used as an alternative provision should it be found that subsection (i) is not sufficient to cover AIS. It must be remembered that regulations issued by the Minister under this Act would only be applicable in communal areas

Regulations 31 and 32<sup>4</sup> issued under the Communal Land Reform Act then provide for the application of the provisions of the Soil Conservation Act to communal lands. Regulation 31 reads as follows:

- (1) Subject to the Soil Conservation Act, 1969 (Act No 76 of 1969), the holder of any customary land right or right of leasehold must use and manage the land so as to prevent –*

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<sup>4</sup> Regulations made in terms of the Communal Land Reform Act, 2002 (Act no 5 of 2002), Government Notice No 37 of 2003, Government Gazette No 2926 of 2003



- a) *Erosion of the soil;*
- b) *Any other disturbance of the soil which creates or may create conditions which cause or may cause any form of erosion or pollution of water by silt or drift-sand,*

*And must in this regard at all times comply with any requirements of the Department of Agriculture and any provision of law with regard to the combating and prevention of soil erosion on land.*

Regulation 31 (2), in the case of soil erosion, authorises the cancellation or suspension of any or all of the rights of the holder in or to such land by the Traditional Authority, the Chief or the communal land board, as the case may be.

Regulation 32 provides for the protection of pastoral resources. It reads as follows:

*'Subject to the Soil Conservation Act, 1969, the holder of any customary land right or right of leasehold must use and manage the land concerned in accordance with accepted farming practices in the area concerned and must at all times comply with any requirements of the Department of Agriculture and any provision of law with regard to the utilisation, resting and burning of pasturage.'*

It is not clear to what extent the application of the provisions of the Soil Conservation Act has been authorised by the Communal Land Reform Act. In the absence of legislation (made by Parliament) expressly applying the provisions of the Act to the Communal Land Reform Act, it would appear that the regulations issued are *ultra vires* and therefore null and void insofar as they attempt to apply the Soil Conservation Act to communal lands. Another concern is the overlap of jurisdiction between the Minister of Lands, Resettlement and Rehabilitation, who can issue regulations under the Communal Land Reform Act, but which regulations must be in line with the requirements of the Ministry of Agriculture.

### **The Agricultural Pests Act No 3 of 1973**

The long title of the Act gives an indication of the scope of the Act: The Act provides for the registration of nurseries and the control and destruction of plants, insects and plant disease at nurseries; the control and destruction in certain proclaimed areas of exotic animals and plants infected with insects or plant diseases; the control of the importation into Namibia of plants, insects, plant diseases, honey bees, honey and exotic animals; the payment of compensation in respect of the destruction of plants, honey, bees and exotic animals and the eradication of plant diseases and insects, and the eradication of locusts; and to define the powers of inspectors.

#### *1. Destruction of exotic animals and plants*

The Act defines an exotic animal as *'any vertebrate member of the animal kingdom which is not indigenous or native to Namibia, and includes the eggs*

*of any such member, but does not include any cattle, sheep, goat, horse, donkey, mule pig, ostrich, dog or cat or any poultry or eggs of poultry or ostrich.*' (Section 1)<sup>5</sup> Compare this definition with the definition of "exotic game" under the Nature Conservation Ordinance.

Section 9 authorises the Minister of Agriculture, if deemed expedient, to order by notice in the Gazette the compulsory destruction of any exotic animal found in a specified area by the owners and occupiers of land or premises. This authority also extends to the destruction of any plant infected with any insect or plant disease. The Minister may in the notice then determine the steps, including quarantine measures, procedures and directions to be followed to regulate the cleansing or destruction of plants or the destruction of the exotic animal.

Owners or occupiers have to carry out the cleansing operations, failing which the Minister may cause these actions to be undertaken, at the expense of the owner or occupier. (Section 10)

This Act seems to be suitable to control the importation of animals that may turn out to be problematic, i.e. alien and invasive species. It is however less applicable in the case of plants, as it mostly covers the destruction of plants infected with plant diseases or insects, which may not always be the case with AIS. It is also not clear if and to what extent the Act deals with fish, and the protection of (inland) water and water courses. It is also silent on the aspect of animal diseases or micro-organisms such as bacteria and viruses.

## *2. Importation of plants, plant diseases, insects, honeybees and exotic animals*

The provisions of the Act on the importation of plants and exotic animals into Namibia can be utilised to prevent the importation of AIS into the country, in addition to the regular phytosanitary controls. Of special importance for our purposes are the prohibitions contained in section 11, which prohibit the importation into Namibia of any plant, plant disease or insect, honey bees, larvae or eggs, honey and beeswax, or any exotic animal without the written permission of the Minister. A permit may contain such conditions, including the quantity of the items that may be imported, as the Minister may deem fit. (Section 11(3))

Subsection (4) mentions the methods by which the importation can take place. It can be by post, or through any port, airport or inland port of entry specified by the Minister in the Gazette.<sup>6</sup> The Minister may also indicate as a condition of the permit that entry must take place through a specified port, airport or

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<sup>5</sup> The definition of an exotic animal under the Agricultural Pests Ordinance is somewhat different. An exotic animal means any animal (other than man) and any bird, reptile, insect or other member of the animal kingdom which is not indigenous or native to that part of Africa which lies south of the Equator and shall include the eggs of any such animal, bird, reptile insect or member, but shall not include stock as defined in the law for the time being in force in South West Africa relating to diseases of stock.

<sup>6</sup> As it stands, the Act only names South African ports, but as the Minister may name ports of entry in the Gazette, Namibian ports of entry may be named.

inland port of entry (Subsection (5), and may by notice exclude any country from the provisions of subsection (1) regarding the importation of plants (subsection (2)).

It is important to realise that this section gives the Minister the power to regulate the *importation of any plant or exotic animal*. As such it is an important piece of legislation that can be utilised to regulate the importation of alien and invasive species before they cross the borders. This can be done by notice in the Government Gazette, which means that it does not have to go through Parliament for it to become law.

Section 12 allows the Minister to import and distribute into Namibia any insect or exotic animal that, in his opinion, is necessary or desirable for the destruction of any noxious plant or insect, or otherwise in the interests of any branch of farming. The Minister and the state are exempted from liability for losses that may occur as a result of such importation or distribution, which could also be of importance with regard to AIS. However, action under this section should be taken with the utmost caution as it may result in the 'controlling' species turning into an environmental problem.

### *Inspectors*

Part VII contains the powers of inspectors<sup>7</sup> to enter onto any land for the purposes of this legislation. An inspector may enter onto any land, and inspect a plant to see if there is any insect or plant disease, and inspectors are given the power to issue a notice of quarantine if plant diseases or insects are found. Inspectors may also issue a notice of quarantine where an exotic animal is found in a nursery or on any land or premises, and may then also order in writing the destruction or other combating of the insect, plant disease or exotic animal. (Section 19). Section 19 *only* authorises the quarantining or destruction of plants infected with insects or plant diseases. It does not allow for the destruction of plants for other reasons, for e.g. because they are an alien and/or an invasive species.

Section 21 is a curious provision, as, on the one hand, it allows inspectors to examine any plant imported into Namibia to determine whether it is infected with any insect or plant disease, and then to cleanse, disinfect or otherwise treat the infected plant. Subsection (3), on the other hand, seems to allow inspectors to destroy or cause to be destroyed *any* plant imported into Namibia in contravention of section 11 (i.e. where no permit has been issued for the importation of the plant), and not only those that are found to be infected with insects or plant diseases.<sup>8</sup> Inspectors may also permit the dispatch of the plant, together with its packaging materials, to any other country.

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<sup>7</sup> Under section 28, inspector's powers may be conferred on police or customs officials.

<sup>8</sup> There is of course also a strong argument that the powers given to inspectors under this section only relates to plants found with plant diseases or insects, seeing that it is contained in subsection (3). It remains to be seen how the courts will interpret this provision.

This subsection seems to very useful for our purposes, as it allows for the destruction or sending back of plants, without the requirement that they should be infected with either insects or plant diseases, provided that the Minister has not issued a permit for their importation. It would appear that plant AIS would resort under this section.

Section 22 allows for the examination of imported plant diseases, insects, any honey bees or their larvae or eggs, and honey or beeswax or any exotic animal, and applies the provisions of section 21 regarding examination, destruction or despatch thereto. Once the inspector is satisfied that the provisions of the Act and regulations have been complied with, the inspector must issue a clearance certificate.

Under section 25, the Minister may authorise inspectors to destroy any exotic animal which, in the opinion of the Minister, *is dangerous or harmful, or which may become dangerous or harmful*. This section would be useful to deal with animal AIS.

Section 27 may perhaps be the strongest provision for the regulation of AIS. It authorises the Minister, if the Minister thinks it expedient, to extend the provisions of the Act by notice in the Gazette in order to *prohibit or limit the planting, keeping or selling of any plant* or the *keeping* of any plant disease, insect or exotic animal, or to *prohibit or limit the conveying* of any plant, insect, plant disease or exotic animal from one place to another in Namibia. The interpretation of planting and selling do not pose problems, but *keeping* a plant or exotic animal may provide an obstacle under certain circumstances. If an animal or plant AIS grows in the wild, is the farmer who fails to destroy the plant or animal keeping it? And to what extent would this section deal with AIS that is found on state land?

Section 33 describes the regulatory powers of the Minister. These cover:

- Any matter that may be prescribed under the Act
- The manner in which and place where any registration, inspection, disinfection, cleansing, eradication or destruction in terms of this Act is to take place
- The conditions and restrictions governing the importation and keeping of plants, insects, plant diseases, honey bees, articles (sic), exotic animals and anything whatsoever dealt with under this Act
- The form of any licence, permit, certificate, application or notice
- The standards and phytosanitary quality requirements with which plants that are for sale must comply
- The manner in which plants that are for sale must be cultivated, grown, kept, or sold, and prescribing the records that must be kept of any plants cultivated, grown, kept or sold
- Charging of fees
- Any matter which the Minister deems necessary to prescribe for the better achievement of the objects and purposes of the Act

While these regulatory powers may be wide enough to cover AIS, it may be useful to amend these regulatory powers to specifically provide for AIS.

### **Agricultural Pests Ordinance No 11 of 1927**

It would appear that the Agricultural Pests Act is not the only piece of legislation dealing with agricultural pests. There is also an Agricultural Pests Ordinance No 11 of 1927 that seems to be applicable, as the Ordinance had not been specifically repealed. It could be argued, under the rules of interpretation of statutes, that the Ordinance had by implication been repealed by the Act, the act being the latter piece of legislation.

Subject to the possible repeal of the Ordinance by the Agricultural Pests Act 3 of 1973, it is of interest to note that the 1927 Ordinance specifically prohibits the introduction of the following plants into Namibia from overseas:<sup>9</sup>

- a) *Eucalyptus, acacia, or coniferous plant;*
- b) *Stone fruits in their fresh state, including apricots, plums, peaches, nectarines and cherries;*
- c) *Peach stones;*
- d) *Rooted plants for breeding or grafting except rooted almond, pear, plum, and cherry stock.*<sup>10</sup>

Section 9(2) prohibits the introduction from overseas of the following plants, except if authorised by the granting of a permit, under supervision and with the necessary precautions being taken:

- a) *Grape vines or other plants of the family Vitaceae;*
- b) *Sugar canes;*
- c) *Plants cultivated for the production of rubber;*
- d) *Tea plants;*
- e) *Cotton seeds;*
- f) *Seeds, fruits, cuttings of the genus Olea;*
- g) *Date palms, shoots or cuttings;*
- h) *Potato seed, tubers or cuttings or any plant of the genus Solanum*<sup>11</sup>

The Ordinance then provides for inspection powers and the power to destroy plants that have been introduced in contravention of the section.

Of interest for our purposes is also the regulatory powers given to the Administrator:<sup>12</sup>

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<sup>9</sup> Section 13 allows the administrator to make the provisions relating to the introduction of plants from overseas applicable to plants introduced from African countries situated south of the equator.

<sup>10</sup> Section 9(1)

<sup>11</sup> Section 9 (3) provides that fruit, bulbs, tubers, vegetables, such portions of plants as can not be propagated and such herbaceous plants as specified by the Administrator by notice in the gazette, shall not be regarded as plants for the purposes of this section.

<sup>12</sup> I am not sure who would have succeeded the Administrator upon Independence (if this Ordinance had survived the Agricultural Pests Act of 1973); it could be the President or the Minister, depending on the wording of the transfer legislation. The definitional section states that the department

- a) The power to include the seed of a plant under the definition of a plant;
- b) The power to change the list of plants that are regulated under section 9;
- c) The power to prohibit or restrict the removal of any plant within Namibia for the purpose of preventing plant diseases; and
- d) The power to prohibit or restrict the introduction into Namibia of any plant from any particular country or place.

Section 18 grants the Administrator the power to prohibit or restrict the introduction of any particular class of exotic animals if such introduction appears to be dangerous, harmful or undesirable.

It would be useful for the regulation of AIS to compile lists of plants and animals that may not be imported and those that may be imported, but subject to the issuing of a permit or other means to control their spread.

### **Weeds Ordinance No 19 of 1957<sup>13</sup>**

The Weeds Act No 42 of 1937, despite its repeal in South Africa by the Conservation of Agricultural Resources Act No 43 of 1983, seems still to be applicable in Namibia. (The Conservation of Agricultural Resources Act does not apply here.)

The Weeds Ordinance of 1957, however, also seems to be applicable in Namibia. It is of interest to note that it was promulgated twenty years after the Weeds Act. It is not clear which one would apply in Namibia if both were still in force. Usually the latter act supersedes the earlier one, but in this case the later piece of legislation is an ordinance (issued by the SWA Legislative Assembly), which is subordinate to an Act of the SA Parliament. I am not sure if a later subordinate piece of legislation can repeal an earlier Act of Parliament, though I strongly doubt it.

I proceed from the position that the Ordinance is applicable in Namibia.

Section 1 gives the Minister<sup>14</sup> the power to declare any plant to be a weed, either throughout the country or only in one or more areas.<sup>15</sup> There rests a duty on the occupier or in the absence of an occupier, the owner to eradicate weeds. Any officer<sup>16</sup> may by notice require the occupier or owner of land on which the weed is growing to eradicate it within the time specified in the

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responsible for the implementation of the Ordinance is the department responsible for agriculture, which seems to point to the Minister of Agriculture as being the responsible person.

<sup>13</sup> I have however not been able to find the Weeds Act. The reference in the Ministry of Justice library shows the act as no longer being applicable in Namibia.

<sup>14</sup> I substitute the reference to the Administrator with that of the Minister.

<sup>15</sup> 'Weed' is defined as any plant which has been declared a weed in a proclamation by the Administrator (Section 11)

<sup>16</sup> An officer is defined as any policeman and any officer of the Agricultural Branch of the Administration and includes any other person acting under the general or special authority of the Administrator (section 11)

notice.<sup>17</sup> If the owner or occupier fails to do so, the Minister may authorise any officer to eradicate the weed, and to recover the costs for doing so from the occupier or owner.<sup>18</sup> Provision is also made for the situation in which the owner or occupier is unable to eradicate the weed, or where there is no occupier or owner. In such a case the Minister may at the public expense cause an officer to eradicate the weed, recovering such portion of the costs of eradication from the occupier or owner as he may determine. The Minister may also render assistance – financial or otherwise - and upon such conditions as he may think is required for the eradication of the weed by the occupier or the owner.<sup>19</sup>

The Minister has the power to take such steps as considered necessary to obtain information regarding weed on any land and where it grows.<sup>20</sup>

Section 7 authorises the Minister to make regulations to give effect to the provisions of the Ordinance, including

- Notification by owners or occupiers of land regarding the presence of weeds upon that land
- Prescribing the times at which and the methods by which any particular weed has to be eradicated.
- Prescribing the facilities and assistance that each owner or occupier of land must give to an officer who is eradicating weeds upon that land
- Prescribing the powers of officers regarding the eradication of weed
- Restricting the movement of livestock to which specified weeds or portions thereof are adhering or the movement of livestock into or out of any area in which specified weeds are growing
- Prohibiting or restricting the importation, distribution, conveyance or sale of any seeds with which the seed of any particular weed as become mixed and prescribing the powers and duties of officers in connection with the inspection of seeds
- Powers to identify the occupiers of communal land, in consultation with the Minister of “Native Affairs”<sup>21</sup> for the purposes of section 6, which allows magistrate’s courts to determine the amounts payable by the occupier or owner of land in consideration for any assistance rendered in the eradication of weed
- Generally for preventing the introduction into Namibia of weeds or the spread thereof.

Section 8 provides for criminal offences in the case of non-compliance with regulations, or obstructing or hindering the administrator or the officers in the exercise of their powers under the Ordinance or regulations issued thereunder. Furthermore, placing or causing or permitting any portion of weed

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<sup>17</sup> Section 2

<sup>18</sup> Section 4

<sup>19</sup> Section 5

<sup>20</sup> Section 3

<sup>21</sup> I do not know which Ministry took over this function after independence. It could be the Ministry of Lands, Resettlement and Rehabilitation which is responsible for communal land matters.

or any weed in any river, watercourse, or water furrow or on any public road is a criminal offence.

### *Considerations*

This Ordinance seems to be useful with regard to the control of alien and invasive plants. It does not deal with animals at all. There is just one problem, and that is what is normally understood by a *weed*. The Paperback Oxford English Dictionary (2002) defines weed as '*a wild plant growing where it is not wanted and in competition with plants which have been deliberately grown.*' The first part of the definition is still applicable to alien invasives, but we may have problems with the second part, namely where it is in competition with plants that have been *deliberately grown*. As far as I understand the situation, alien and invasive plant species are not necessarily in competition with any deliberately grown plant, but rather in competition with indigenous plants wherever they occur whether occurring naturally or being grown deliberately.

### **Protecting marine resources against alien and invasive species**

The discussion thus far focussed on the protection of terrestrial biodiversity against alien and invasive species, as well as inland fish species. It is also important to consider the impact on marine biodiversity, particularly in view of the importance of the fishing sector to the Namibian economy.

### **The Marine Resources Act, Act No 27 of 2000**

The Act has been enacted to deal with all aspects of the regulation of marine resources including the management, protection and utilisation of marine resources in Namibia and Namibian waters subject to the provisions of the Act. (Section 3(2). The Act applies to Namibian waters, which includes the internal waters, the territorial sea, the contiguous zone, the exclusive economic zone of Namibia, the seabed and up to the high water mark. (Section 1)

Sadly, the Act does not specifically provide for either the control of alien and invasive species or the prohibition of the importation thereof. It grants the Minister (of Fisheries and Marine Resources) certain powers insofar as regulation is concerned, but it is my suggestion that the Act should be amended to adequately cover AIS. In this regard, it may be useful for the AIS Working Group to work closely with the MFMR, the Benguela Current Large Marine Ecosystem Programme and the working group on wetlands..... to come up with suggestions to either the Minister or one of the institutions created by the Act, the Fisheries Observer Agency or the Marine Resources Advisory Council, that in turn can advise the Minister.

I have identified certain provisions in the Marine Resources Act that I think should be amended to adequately deal with AIS issues.

The definition of *marine resources* in section 1 is very broad. It covers *all marine organisms*, including but *not limited to plants, vertebrate and*



*invertebrate animals, monerans, protists (including seaweeds), fungi and viruses, and also includes guano and anything naturally derived from or produced by such organisms.* This is probably the only piece of legislation that covers micro-organisms insofar as AIS are concerned.

It would be useful to include a definition of alien and invasive species that would provide the background to the issues in the amending legislation.

Section 2 authorises the Minister to determine the general policy with regard to the conservation and utilization of marine resources in order to realise the greatest benefit for all Namibians, present and future. This mandate clearly covers the means to protect marine resources from the threats posed by alien and invasive species.

The Act provides for the appointment of *fisheries inspectors* and *honorary fisheries inspectors*. Their powers are set out in section 5 and 6. These powers include the right to board and inspect vessels, to enter premises to examine fishing gear or objects which is being used or intended to be used for the harvesting, handling or processing of marine resources. It is suggested that their powers be expanded to include dealing with AIS. Similarly, section 7 provides for the appointment of *fisheries observers*, who have the duty to observe the harvesting, handling and processing of marine resources and related operations and to record data concerning such operations, to collect and record biological and other information related to activities governed by this Act and to collect samples of marine resources harvested. Again, their powers should be expanded to include similar powers with regard to AIS.

The Fisheries Observer Agency, established under section 8, has the duty to provide fisheries observers and to ensure their training. AIS is one aspect that should form part of their training, which could be sanctioned by section 2, which authorises the Minister to set the general policy with regard to conservation and utilisation of marine resources.

Under section 24, a Marine Resources Advisory Council is established to advise the Minister in relation to any matter that the Minister has to consult the Advisory Council on, as well as any matter which the Minister may refer to the Council for investigation and advice. It is not necessary to amend this section, but rather to raise awareness regarding the threats posed by alien and invasive species and the possibility of having the Minister request the Advisory Council to investigate and advise him or her on the matter.

I do not think that the provisions contained in Part VI, relating to the commercial harvesting of marine resources, are affected by the need to protect marine resources from alien and invasive species, with the result that this part needs not be amended.

Section 45 converts the existing Sea Fisheries Fund (created under the Sea Fisheries Act) into the Marine Resources Fund. Available moneys should be

used to meet the expenses of research, development, training and education relating to marine resources. This mandate would allow funding for research and training in alien and invasive marine species.

Management and control measures are listed in Part VIII. The Minister is empowered to prescribe measures for the conservation of marine resources, for the control or harvesting of such resources and for the protection of the marine environment including the time and place of harvesting, the species, size and quantity of the harvestable marine resources, the equipment and methods to be used in harvesting and the measures to limit the amount of harvesting capacity. (Section 47 (3) It should be possible to amend this section to incorporate measures and methods to control alien and invasive species, which should cover accidental (in the normal course of shipping operations) and deliberate releases of alien or invasive species by both national and foreign vessels.

Section 51 authorises the Minister to declare any area a marine reserve for the protection or regeneration of marine resources, which may be of importance in the case of protecting especially vulnerable marine ecosystems, or to attempt to restore an ecosystem infested by alien or invasive species.

Part IX contains the offences and penalty section of the act. Section 52 (4) (e) at present provides that any person who

*Discharges in or allows to enter or permits to be discharged in Namibian waters anything which is or may be injurious to marine resources or which may disturb or change the ecological balance in any area of the sea, or which may detrimentally affect the marketability of marine resources, or which may hinder their harvesting, shall be guilty of an offence and liable on conviction to a fine not exceeding N\$500 000.*

This section seems to be wide enough to penalise the introduction of AIS, which may be injurious to marine resources or which may disturb or change the ecological balance in any area of the sea. It could however be argued that this section only relates to for example dumping of toxic substances or of oil that can cause damage to the marine environment, but I am of the opinion that it may be adequate to cover AIS. What is needed, however, is an added provision that would allow the Ministry to conduct cleaning up operations or to take measures to control AIS with the possibility of recovering reasonable expenses from the person who has caused the damage.

Section 54 allows for forfeiture to the state of the marine resources, fishing gear vessel, vehicle or item that were used to contravene the Act. If the Act were amended to specifically regulate AIS, this section would be adequate to allow for forfeiture in case of a conviction under the Act.

Under Part X, the Minister may make regulations in connection with any matter required or permitted by the Act (Section 61 (1) (a). The Minister may require a permit for any equipment or the conduct of any activity in connection

with marine resources not already covered under the Act and providing for the issue of such permit and the payment of any fees in connection therewith (Section 61 (1) (e)). The Minister may also regulate or prohibit the sale or disposal in any other manner, the transportation, importation or exportation of marine resources (section 61 (1) (j)), or regulate or prohibit the discharge in the sea or discarding on the seashore and land of specified substances or materials, or substances or materials not complying with specified requirements or having specified properties. (Section 61 (1) (r). The Minister is also authorised to regulate and exercise control over research and development activities in connection with the harvesting and protection of marine resources, and providing for the making of surveys and the gathering of information regarding the requirements and demand in respect of marine resources, the state and potential of marine resources and the harvesting, processing, transport and disposition of marine resources. (Section 61 (1) (t) – (u).

These sections may be broad enough to cover AIS, but I would suggest that a specific subsection should authorise the Minister to regulate matters of AIS, as this would send a clear signal that the issue is a serious matter, requiring special action.

In conclusion, the Marine Resources Act has the potential to comprehensively regulate marine AIS, but some amendments are required to fulfil this function. Regulations issued in terms of existing provisions may not be sufficient to control AIS.

### **The South African Biodiversity Bill**

It may be useful to look at the provisions of the (South African) Draft Biodiversity Bill regarding AIS as an example for regulating AIS in Namibia.

The purpose of the chapter on alien and invasive species are stated in section 59, namely to *(a) prevent where possible the introduction and spread of alien species and invasive species to ecosystems and habitats where they do not naturally occur; (b) to manage and control alien species and invasive species to prevent or minimise harm to the environment and to biodiversity in particular; and (c) to eradicate alien species and invasive species from ecosystems and habitats where they may harm such ecosystems or habitats.*

### **Alien species**

Section 1 defines alien species as: *(a) a species that is not an indigenous species; or (b) an indigenous species translocated or intended to be translocated to a place outside its natural distribution range in nature, but excludes an indigenous species that has extended its natural distribution range by natural means of migration or dispersal without human intervention.*

Section 60 deals with restriction of activities with regard to alien species, requiring the issuing of permits to engage in restricted activities<sup>22</sup> regarding a specimen of an alien species. This permit may only be issued after the prescribed assessment of risks and potential impacts on biodiversity has been carried out.

Section 61 allows for the exemption of alien species that was lawfully used immediately before the section took effect for the production of agricultural products. These could include fruit trees, cotton, maize, etc. The Minister in addition may exempt other alien species by notice in the Gazette. In case of exempted alien species, any person may carry out a restricted activity without a permit.

Section 62 authorises the Minister also to publish a list of alien species for which restricted activities are totally prohibited (i.e. permits may not be issued to authorise activities with regard to the listed aliens.)

The Minister must regularly review these lists. Notices under section 61 and 62 may be amended or repealed in the Gazette.

Permit holders must comply with the conditions of the permit, as well as taking all reasonable steps to prevent or minimise harm to biodiversity. (Section 64) The Minister<sup>23</sup> is empowered to direct a person who has contravened section 60 or 62 to take such steps as may be necessary to remedy any harm to biodiversity caused by the actions of that person and as may be specified in the directive. Provision is made, in case of the person failing to heed the directive, that the Minister may implement the directive and recover all costs reasonably incurred. If the alien species establishes itself as an invasive species as a result of the actions of a specific person, the Minister may hold that person liable for all costs incurred in the control and eradication of that species.

## **Part 2: Invasive species**

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<sup>22</sup> Restricted activities with regard to alien species or listed invasive species are defined as: (i) *importing into the Republic, including introducing from the sea, any specimen of an alien or listed invasive species; (ii) having in possession or exercising physical control over any specimen of an alien or listed invasive species; (iii) growing, breeding or in any other way propagating any specimen of an alien or listed invasive species, or causing it to multiply; (iv) conveying, moving or otherwise translocating any specimen of an alien or listed invasive species; (v) selling or otherwise trading in, buying, receiving, giving, donating or accepting as a gift, or in any way acquiring or disposing of any specimen of an alien or listed invasive species; or (vi) any other prescribed activity which involves a specimen of an alien or listed invasive species.*

<sup>23</sup> The Bill refers to the competent authority, which I have mentioned here as the Minister. The definition of 'competent authority' is necessitated by the South African constitutional dispensation. Competent authority is defined as (a) the Minister (responsible for national environmental management), (b) an organ of state in the national, provincial or local sphere of government designated by regulation in terms of section 74 (b) as a competent authority for the control an alien species or a listed invasive in terms of the Bill, or (c) any other organ of state which in terms of other legislation performs a duty or exercises a power relating to the control of the importation into the Republic, or the introduction into or combating in any area, of an alien or invasive species.

Invasive species are defined as *any species whose establishment and spread outside of its natural distribution range (a) threaten ecosystems, habitats or other species or has demonstrable potential to threaten ecosystems, habitats or other species; and (b) may result in economic or environmental harm or harm to human life.*

Section 65 allows the Minister to publish in the Gazette a list of invasive species that is subject to the provisions of the Bill. This list must be regularly reviewed, and the Minister may amend or repeal any notice published under this section.

Section 66 requires the carrying out of restricted activities regarding specimens of invasive species only if authorised by a permit. A permit may be issued only after an assessment of risk and potential impacts on biodiversity has been carried out. This assessment is referred to in section 74 (e).

Section 68 imposes a duty of care on holders of permits. Permit holders are authorised to carry out certain restricted activities with regard to invasive species, but must comply with permit conditions and the taking of all reasonable steps to prevent or minimise harm to biodiversity.

There is also a duty on the owner of land on which a listed invasive species is found. The owner must:

- Notify any relevant authority, in writing, of the listed invasive species occurring on the land
- Take steps to control and eradicate listed invasive species and to prevent it from spreading
- Take all other reasonable steps to prevent or minimise harm to biodiversity.

The Minister has the power to direct any person who has failed to comply with the duties listed above or who has contravened section 66 (1) (permit requirements) to take such necessary steps to remedy any harm to biodiversity caused by the actions of that person or the occurrence of the listed invasive species on the land of which the person is the owner and as may be specified in the directive (section 68 (4)).

Failure to implement the directive may result in the Minister implementing the directive and recovering all costs reasonably incurred by the competent authority in implementing the directive, from the person or proportionally from that person and any other person that has benefited from the implementation of the directive.

A novel provision is contained in section 69, which allows any person to request a competent authority (the Minister) in writing to issue a directive in terms of section 68 (3). The competent authority has to reply in writing to the request within 30 days of the receipt of the request. Provision is made for the person who requested action to approach a court to order the competent authority to issue a directive in the case of the competent authority either

failing to respond to the request within the stated period or refusing the request.

Section 70 covers control and eradication of listed invasive species. These measures must be appropriate for the species concerned and the environment in which they occur. Action to control or eradicate must be taken with caution and in a manner that will cause the least possible harm to biodiversity and damage to the environment. Control and eradication measures must also be directed at the offspring, propagating material and re-growth of such invasive species in order to prevent them from producing offspring, forming seed, regenerating or re-establishing itself in any manner.

Section 71 contains a duty to incorporate into management plans of protected areas a strategy to control and eradicate invasives, while all organs of state in all spheres of government must control an invasive species strategy in environmental plans under the National Environmental Management Act. Assistance may be rendered to municipalities in this regard. An invasive species control and eradication plan must include:

- ❑ A detailed list and description of any listed invasive species occurring on the relevant land
- ❑ A description of the parts of that land that are infested with such listed invasive species
- ❑ An assessment of the extent of infestation
- ❑ A status report on the efficacy of previous control and eradication measures; and
- ❑ The current measures to control and eradicate such invasive species.

There is a duty on the management authority of a protected area to regularly prepare and submit to the Minister a report on the status of any listed invasive species that occurs in that area. (Section 72) This report must include:

- ❑ A detailed list and description of any listed invasive species occurring on the relevant land
- ❑ A description of the parts of that land that are infested with such listed invasive species
- ❑ An assessment of the extent of infestation
- ❑ A status report on the efficacy of previous control and eradication measures

Section 73 requires the Minister to follow a consultative process when drafting lists of alien species for which a permit is required to do restricted activities, and for which no permit is required, as well as similar lists for invasive species.

The Minister is empowered to issue regulations with regard to the following:

- ❑ Organs that will issue permits in terms of restricted activities insofar as they relate to alien and invasive species

- Designating competent authorities for implementing and enforcing the provisions of the Bill
- Facilitating the implementation and enforcement of sections 60, 62 or 66
- Prescribing compulsory conditions for any permit issued under section 60 (1) or 66 (1)
- The assessment of risks and potential impacts on biodiversity of restricted activities involving specimens of alien species or of listed invasive species; and
- Measures relating to the control and eradication of listed invasive species.

This draft Bill covers many issues that should form part of Namibian regulatory measures. There are of course additional considerations that should be gleaned from stakeholders.

### **Outline of draft Namibian legislation on AIS**

From the discussion above, it would be clear that I prefer the option of using existing legislation to regulate AIS matters for two reasons. Firstly, regulations can be drafted by technical people in a particular ministry and issued by the Minister without parliamentary approval, which would be time-efficient. Secondly, it is difficult to predict how long it would take to draft specific AIS legislation, and to what extent this legislation would get parliamentary approval to be passed. If the bills drafted under the Environmental Legislation Project are any guide, we are thinking of a rather extended period of time.

From the discussion above it would appear that the most applicable legislation to regulate alien and invasive species would be the Nature Conservation Ordinance (covering animals, plants, and fish), the Forest Act and the Marine Resources Act. Where these are found wanting, it may be useful to see if they could be amended to address the concerns, or to look at the other acts discussed to see if they could be utilised to fill the gaps. In this scenario, a complicating factor is that Ministries other than the MET are involved. The SABSP programme is however housed in the Ministry of Environment and Tourism. It is not clear to what extent the MET, MAWRD and MFMR would cooperate in this regard. Apart from the Marine Resources Act, none of the acts is dealing with micro-organisms. Inland fisheries and aquatic life are not covered to any great extent even by the Nature Conservation Ordinance.

A possible solution to the overlapping of jurisdiction could be a mandated consultation process between the various Ministries, or consulting all cabinet members whose areas of responsibility will be affected by the exercise of power and to encourage public participation in the exercise of powers, including the compilation of lists of alien and invasive species.

#### *Proposed framework:*

I propose the following structure for regulations in the interim dealing with alien and invasive species:

1. Object and purpose of the regulations, i.e. to protect indigenous species, biodiversity and ecosystems from threats by alien and invasive species.
2. Definitions of alien and invasive species, including animals, plants, fish, viruses, bacteria and other micro-organisms.
3. Separate lists of alien and invasive species, also specifying the activities that are authorised with regard to them, for example by the issuing of permits.
4. Methods and means by which to control, eradicate, destroy listed aliens and invasives.
5. A list of aliens that are exempted from the provisions of the regulations, for example aliens used in the production of food, textiles, etc.
6. The duties and responsibilities of inspectors, nature conservators, land owners and occupiers, local authorities, right holders over communal land, communal land boards, etc. with regard to the control or eradication of alien and invasive species. These could include inclusion of AIS in regional development plans, conservancy management plans, park management and administration plans, forest management plans and in the national forest inventory as required by the Forest Act.
7. The creation of an AIS register, indicating the extent of infestation, actions taken, progress, etc.
8. A system of permits to regulate the importation, exportation and movement of listed alien and invasive species within Namibia.
9. Public participation in the process, including awareness and education.
10. Research into AIS
11. Penalties
12. I think it is also important to regulate bush encroachment in a more comprehensive manner. A similar framework to the one proposed above should be established for bush encroachment. In addition, this framework should regulate activities for the (sustainable?) utilisation of encroacher species, such as charcoal production, other energy-producing activities and proper planning and management to restore biodiversity in encroached areas.

### *The way forward*

Some suggestions on the way forward:

The SABSP Steering Committee can decide on the legislation that should be used, and the scope of the regulations (i.e. decide on a framework for the regulations). The Steering Committee can also identify experts in the field who should be approached for specific technical inputs, such as lists of AIS, exemptions, methods of control and eradication, etc. This information can be obtained without actually having to convene workshops. It is essential that once the preliminary information is obtained, a stakeholder workshop should be called to discuss all the information obtained and to finalise the draft version of the regulations.



It would also be beneficial if the Steering Committee would appoint a committee that would oversee the process. This committee should also meet with and discuss the need for these regulations with senior policy makers, not only in the MET, but also MAWRD, MLRR, MFMR to get their support, but also to be directed to experts in the respective ministries for input and information.