A Look at the Regulation of Trout in South Africa

By

Ian Cox

INTRODUCTION

The context that currently applies to the regulation of trout in this country is one of revolutionary change. I say so because the mind-set and vision that informs decisions around trout today cannot be more different than that which applied say 30 years ago.

- 30 years ago trout were a protected species enjoying significant government support.
- Now in law at least they are condemned as invasive aliens and must either be eradicated or controlled for that purpose.

THE EARLY YEARS

The introduction trout into this country has its roots in Act 10 of 1867.[1] This law provided for the introduction of fish that were not native to the Cape. This was followed up some 20 years and many failed attempts at introducing trout, by Law 21 of 1884 which was aimed specifically at the introduction of trout[2]. This law resulted in the first successful stocking of South African waters in 1890. Paradoxically this did not take place in the Cape but in Natal[3].

Success followed in the Cape and in 1893 the Cape Colonial Legislature passed the Fish Protection Act.[4] This made fishing for trout a criminal offence without a permit. By then two hatcheries were in operation, one at Jonkershoek[5] in the Western Cape and another at Boshoek[6] in Kwa Zulu Natal. A further hatchery was established at Pirie in the Eastern Cape the following year[7].

These and the many hatcheries that were established thereafter were funded by Government with taxpayer's money. Numerous rivers were stocked in the Cape, Natal and later the Transvaal. The Cape legalised trout fishing in 1903[8].

I mention this because it underpins two important points in our trout narrative, namely:

- that trout were a protected species;
- whose propagation was supported and funded by government.

This is why trout fell under the jurisdiction of our early environmental agencies. Indeed South Africa's earliest attempts at the maintenance and preservation of our fresh water fisheries were directed largely at trout and conceived and implemented by trout fishermen who were employed by

[1] Sea Fisheries Of The Cape Colony W Wardlaw Thompson page 122
[2] Dr Bob Crass Trout in South Africa page 149.
[3] John Parker stocks the Bushman's on 7 May 1890 with trout reared at his hatchery located on the Farm Boschoek. From Greenheart to Graphite by Dr Jake Alletson. His stocking of the Mooi some five days earlier was unsuccessful.
[4] The Kingfisher Malcom Meintjes page 4.
[5] Sea Fisheries of the Cape Colony W Wardlaw Thompson page 122.
[6] From Greenheart To Graphite by JF Alletson
[7] Sea Fisheries of the Cape Colony W Wardlaw Thompson page 129.
[8] The Kingfisher Malcom Meintjes page 4.

the State to do this. The earliest attempt at a national survey was undertaken in 1925 by Sidney Hey of Rapture of the River Fame. Government's early fisheries officers were all trout fishermen[9].

The approach adopted by these agencies is best described by Dr Douglas Hey, then Director of Inland fisheries who wrote:

The primary object is to develop all inland waters to their maximum productive capacity selecting the most suitable species of fish from the viewpoints of table and sporting qualities. In doing so, there should be a nice balance between the interests of economic fisheries, sport fishing and the natural fauna…The Department is well aware of its obligation to provide well stocked waters for resident anglers and for the attraction of visitors. Care should be taken to preserve the indigenous fish fauna in certain areas for scientific and educational purposes.[10]

PRE 1994 LEGISLATION

By 1994 the following legislation governed trout.[11]

1. Nature Conservation Ordinance 8 of 1969. (Orange Free State).
2. Nature Conservation Ordinance 15 of 1974. (Natal)
3. Nature and Environmental Conservation Ordinance 19 of 1974 (Cape).
4. Kwa Zulu Natal Nature Conservation Act of 1975.
5. The Qua Qua Nature Conservation Act 5 of 1976.[12]
6. Nature Conservation Ordinance 12 of 1983 (Transvaal).
7. The Nature Conservation Act 10 of 1987 (Ciskei).
8. Decree 9 (Transkei) of 1992.

That legislation was, with the exception of the Cape and, if that legislation dealt with trout at all, concerned with their protection and conservation. Thus, for example:

1. The Natal Nature Conservation Ordinance of 1974 places the stocking and general exploitation of KZN's freshwater fish species, including trout under the control of what was then the Natal Parks Board. In terms of that regime no one other than the Parks Board can operate a hatchery, stock water, or sell or fish for trout without a permit issued by the board.
2. The Transvaal Nature Conservation Ordinance 12 of 1983 also protects what are called trout waters by means of a permitting system that applies inter alia to the stocking of rivers.

TROUT WARS AND ENVIRONMENTAL SUSTAINABILITY

In 1985 the Cape Nature Conservation Department announced that it was going to remove all protection that previously existed in respect of what were termed exotic fish. It did so the following year. Ordinance 26 of 1986 repealed the definition of trout area along with the restrictions that applied in section 56(f) as to how they may be caught. Section 57 was also amended making the sale of trout along with other exotic fish like carp, blue gill and bass an offence unless this was done

[9] Dr Bob Crass Trout in South Africa page 148
[10] Trout in South Africa by Dr Bob Crass at page 151
[11] Prof Michael Kidd Environmental Law page 101
[12] I have not as yet managed to obtain a copy of the Act.

under authority of a permit. Paradoxically the minimum size limit set out in the regulations remained; with the result that one still committed an offence if you caught and kept a trout of less than 23 centimetres!

The trigger for this was largely economic. Cape Nature and indeed all nature conservation bodies saw their primary role as protecting indigenous species. The business of stocking rivers and dams with exotic fish was ruinously expensive.[13] 1985 was not a good time for the South African Government. The State of emergency was in full swing. The war in Angola was going badly. It was when P.W. Botha made his infamous Rubicon speech and sanctions began to bite. The Government was running out of money and running hatcheries and their attendant stocking programs at a loss was no longer affordable.

Though economics played a key role in triggering this shift it would be an oversimplification to say this was the only reason. Ideology also played an important role as both the manner of the implementation of this policy shift and later events have shown.

The bombing of Hiroshima and Nagasaki in 1945 awakened human beings to the possibility of their own destruction. This in turn raised awareness of the impacts of a rapidly expanding population and the pollution this brings. Books like Rachel Carson's Silent Spring gave context to this fear and so the environmental and conservation movements that in earlier years saw the birth of the world's great national parks began to shift towards the idea that not only must we preserve and protect wilderness, we must also live our lives in an environmentally sustainable way. The fear of global warming gave impetus to this shift as has research that points towards a loss in global biodiversity and it negative effects this could bring.

THE CONSTITUTION

South Africa's first democratic elections in 1994 radically changed the political and legal landscape of the country. The former homelands ceased to exist as independent and semi-independent entities. The legal regime which made parliament supreme was replaced by one that made the constitution and the basic rights that constitution proclaimed supreme. The four provinces were replaced by nine each with its own elected parliament and each enjoying original law making powers.

How and by whom powers were to be exercised was dealt with first by the Interim Constitution which was passed by the old racially based parliament before the general election in 1994 and later by what is now our constitution, namely Act 108 of 1996[14].

Section 104 of the Constitution entitled provinces to pass legislation for that province with regard to any matter within a functional area listed in Schedule 4 and Schedule 5. Schedule 4 listed those legislative competencies in respect of which a province shared legislative powers with the national legislature and schedule 5 listed those legislative powers that are exclusive to the provinces. Agriculture and nature conservation, excluding national parks, national botanical gardens and marine resources are listed as shared legislative competencies.

[13] Trout in South Africa by Dr Bob Crass page 151.
[14] Promulgated on 18 December 1996 and became law on 4 February 2007.

Section 146 of the Constitution applies in the case of a conflict between national and provincial legislation. It basically states that national legislation that applies uniformly to the whole country will prevail if the:

- National legislation deals with a matter that cannot be regulated effectively by legislation enacted by the respective provinces individually.
- The national legislation deals with a matter that, to be dealt with effectively, requires uniformity across the nation, and the national legislation provides that uniformity by establishing norms and standards frameworks or national policies.
- National legislation is necessary for inter alia the protection of the environment.

Overlapping areas of jurisdiction create a huge risk of conflict and confusion. Thus section 41 of the Constitution states all departments in all spheres of Government must apply principles of cooperative governance when going about their work. This requires all spheres of government and all organs of state within each sphere to inter alia:

- preserve the peace, national unity and the indivisibility of the Republic;
- provide effective, transparent, accountable and coherent government for the Republic as a whole;
- respect the constitutional status, institutions, powers and functions of government in the other spheres;
- not assume any power or function except those conferred on them in terms of the Constitution;
- exercise their powers and perform their functions in a manner that does not encroach on the geographical, functional or institutional integrity of government in another sphere.

CHAOS AND POST CONSTITUTION PROVINCIAL LEGISLATION

This change in status led to a number of provinces enacting new nature conservation laws that as far as trout is concerned, either re-enacted or left alone, the provincial ordinances that were already in place. Thus:

1. Mpumalanga passed the Mpumalanga Nature Conservation Act 10 of 1998 which parroted the provisions of the Nature Conservation Ordinance 12 of 1983 (Transvaal).
2. Kwa Zulu Natal passed the Kwa Zulu Natal Nature Conservation Management Act 9 of 1997 to consolidate the Natal Parks Board and Kwa Zulu Conservation Department. The Nature Conservation Ordinance 15 of 1974 (Natal) was otherwise left intact.
3. The Northern Cape enacted Northern Cape Nature Conservation Act 2009 but since trout do not occur in that province we need not concern ourselves with it.
4. The Western Cape enacted the Western Cape Nature Conservation Laws Amendment Act, 3 of 2000. This largely re-enacted the Nature and Environmental Conservation Ordinance 19 of 1974 (Cape).

The other provinces have left things as they were, though some like the Free State have legislation in the pipe line aimed at aligning their laws with the new national legislation. The position in these provinces can get messy. For example:

1. Three separate pieces of legislation apply in the Eastern Cape, namely:
    a. the Nature and Environmental Conservation Ordinance 19 of 1974 (Cape);
    b. the Nature Conservation Act 10 of 1987 (Ciskei); and
    c. Decree 9 (Transkei) of 1992.

    These laws are not compatible with one another with result that different licencing and control regimes apply depending where you are. In practice it means after a fashion that no controls apply in the old Transkei and Ciskei and the so called Cape Nature Conservation Ordinance applies everywhere else.
2. The Free State has similar problems as what was Qua Qua now lies in its borders. The extent of those problems as far as trout are concerned may be minimal as the Nature Conservation Ordinance 8 of 1969. (Orange Free State) does not legislate specifically for trout.

Though some provinces require one to have a permit to fish for trout, I am not aware of any province that actually enforces that law. All provinces reviewed require hatcheries to be operated and stocking to take place under the authority of a permit issued either by the provincial government or by a national body such as Ezimvelo Wildlife.

THE NATIONAL LEGISLATURE STEPS IN

The situation has correctly been described as confused or chaotic[15] thus inviting the National Legislature to step in and exercise its right to enact National Legislation aimed at creating uniformity. Indeed it is obliged to do so. Section 24 of the Constitution which entitles everyone to an environment that is*:*

- *not harmful to their health or well-being; and*
- *to have the environment protected for the benefit of present and future generations through reasonable legislative and other measures;*
- *that prevent pollution and ecological degradation;*
- *promote conservation; and*
- *secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development*.

Thus in 1998 Parliament enacted the National Environmental Management Act 107 of 1998. This Act is intended as the umbrella legislation for all environmental both national and provincial.

As Professor Peter Britz[16] pointed out in submissions he made to the DEA in September 2013[17]:

- The preamble to NEMA states that sustainable development requires the integration of social, economic and environmental factors in the planning, implementation and evaluation of decisions to ensure that development serves present and future generations;
- NEMA defines sustainable development the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations;

[15] Environmental Law by Prof Michael Kidd page 101.
[16] Professor of Ichthyology at Rhodes University
[17] Submission on the AIS regulations in respect of trout.

- The guiding concept of "sustainable development", is given substance in the NEMA relevant guiding principles which include the following:
    - (2) Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.
    - (3) Development must be socially, environmentally and economically sustainable.
    - (4) (a) Sustainable development requires the consideration of all relevant factors including the following:
        - (f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation and participation by vulnerable and disadvantaged persons must be ensured.
        - (g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognizing all forms of knowledge, including traditional and ordinary knowledge.
        - (i) The social, economic and environmental impacts of activities, including disadvantages and benefits must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.
        - (k) Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.
        - (l) There must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment.
        - (m) Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.

The driving force behind this Act could not be further removed from Dr Douglas Hey's statement back in 1950. The emphasis is on now on environmental sustainability as is demonstrated by the following extract taken from South Africa's report to the 1998 (fourth) Convention on Biodiversity. It described South Africa as aspiring to be:

prosperous environmentally conscious nation whose people are in harmonious coexistence with the natural environment, and which derive lasting benefits from the conservation and sustainable use of its rich biological diversity.

South Africa has enacted 3 subsidiary laws to National Environmental Management Acts since 1998. They are:

1. The National Environmental Management, Protected Areas Act,2003;
2. The National Environmental Management, Air Quality Act, 2004;and
3. The National Environmental Management, Biodiversity Act, 2004.

Only the last of these Acts, the National Environmental Management, Biodiversity Act or the NEM:BA has relevance to trout. In general it became law on 1 September 2004 through those parts of the act which dealt with alien and invasive species only became law in April 2005.

THE UN CONVENTION ON BIOLOGICAL DIVERSITY

The genesis of the NEM:BA is to be found in Article 8h of the Convention on Biological Diversity or Biodiversity which requires members as far as possible and as appropriate:

- to prevent the introduction of those alien species which threaten ecosystems, habitats or species; and
- control or eradicate those alien species.

That convention has its roots as far back as 1968 when Sweden suggested that the United Nations host a conference on the environment. That led to the Stockholm Declaration in 1972 at which 26 environmental principals were agreed upon[18]. These included a number which are easily recognisable today, such as, for example:

2. Natural resources must be safeguarded
3. The Earth's capacity to produce renewable resources must be maintained.
4. Wildlife must be safeguarded
5. Non-renewable resources must be shared and not exhausted.

This treaty had a considerable influence on the drafting of European Union laws and indeed laws in South Africa as well. South Africa passed its first legislation aimed at the sustainable use of the environment in 1989. It was the Environment Conservation Act 73 of 1989.

The Stockholm Convention also laid the foundation for United Nations Conference on Sustainable Development or so the called Earth Summit in in Rio de Janeiro 1992. It was there that the Convention on Biodiversity was opened for signature for the first time.[19]

South Africa signed the Convention the following year and became a party to it in 1995. 193 countries have signed the convention. 4 have not.[20]

The purpose of the convention is inter *alia:*[21]

- *The conservation of biological diversity and the sustainable use of its components*.

It is drafted in the form of a contract and obliges each member country in accordance with its particular conditions and capabilities: to

- Develop national strategies, plans or programs for the conservation and sustainable use of biological diversity; and
- Integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programs and policies.

The engine that drives the implementation of the Convention's Goals is a mix of incentives, public education and awareness.

- Article 11 requires each Contracting Party to, *as far as possible and as appropriate, adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity*.
- Article 13 requires them to:

[18] http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=1503
[19] http://www.un.org/geninfo/bp/enviro.html
[20] http://www.cbd.int/convention/parties/list/
[21] http://www.cbd.int/convention/text/

- *Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes; and*
- *(b) Cooperate, as appropriate, with other States and international organizations in developing educational and public awareness programmes, with respect to conservation and sustainable use of biological diversity.*

COP DECISION VI 23 AND THE INTERNATIONAL APPROACH TO REGULATING BIODIVERSITY

The Convention itself gives very little guidance what is meant by this. That detail is to be found in a much later document, namely in the COP Decision VI 23 that was taken at the Sixth Ordinary Meeting of the Conference of the Parties to the Convention on Biological Diversity in the Hague in 2002[22]. This decision is notably harsh in its recommendations. It states:

- An alien species is one introduced deliberately or inadvertently into an ecosystem at any time as a result of human action.
- An invasive alien is one that threatens or which has the potential threaten biological diversity.
- Invasive aliens must be eradicated and if that is not possible contained and controlled in the sense of reducing their number.

Unlike the Convention itself COP decisions are not binding on member countries. They are free to implement them as they see fit.

- The European Union for example has adopted a much more practical approach. For example, Council regulation EC no 708/2007[23] which deals with invasive species in aquaculture, recognises the growing importance of aquaculture and excludes a number of fish species including rainbow trout, largemouth bass and a number of carp species from its provisions. This is notwithstanding its Strategy for dealing with alien invasive species.[24]
- New Zealand also recognises the economic importance of alien and even invasive species. Their policy position on trout has been expressed in these terms:
  The New Zealand Fish and Game Council has adopted a policy that trout should not be introduced into catchments where they are not already present. On the basis of current knowledge about the interaction between trout and indigenous freshwater biodiversity, the New Zealand Biodiversity Strategy does not promote a significant reduction in the current distribution of trout. However, in some places (at the margins of their distribution) where trout threaten indigenous species or the natural character of pristine ecosystems, they may need to be reduced or removed.[25]
- The United States is not a signatory to the Convention on Biodiversity. Nonetheless its domestic policies are compatible with the principals set out in the COP 6 Decision VI23. Its

[22] http://www.cbd.int/decisions/
[23] http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_168/l_16820070628en00010017.pdf
[24] http://www.cbd.int/doc/external/cop-09/bern-01-en.pdf
[25] http://www.biodiversity.govt.nz/picture/doing/nzbs/part-three/theme-two.html though it seems that the recently published proposed amendments to the Resource Management Act 1991 may dilute this protection and the policy. See http://www.fishandgame.org.nz/sites/default/files/Fish%20and%20Game%20RMA%20Paper%20-%20FINAL%20PRINT.pdf

definition of an invasive species for example is very similar to South Africa. It defines invasive species *as species that are alien to the ecosystem under consideration whose introduction does or is likely to cause economic or environmental harm or harm to human health*. Its approach to dealing with invasive species is in principal very similar to what is recommended in COP 6 Decision VI23. But this can be misleading. The American approach is not based on principal but practicality. Thus impact and resources drive decision making and these are ranked against ten priority setting considerations listed in the National Invasive Species Council Guidelines for ranking invasive species control[26]. Thus invasive species that provide significant economic benefits will receive a low priority while those benefits continue to accrue.

There is good reason for countries adopting this cautious approach. The fact is that it is well-nigh impossible to get rid of an invasive species once it has taken hold. The following extracts from an affidavit deposed to by Dr Guy Preston give interesting context to this fact.[27]

11.

It is important to state that, as much as my colleagues and I share the concerns of the Applicant regarding invasive alien species, the **WfW** Programme does not have a *"plan"* to have eradicated invasive species in KwaZulu-Natal or in the eThekwini Municipality by **2025**, and nor will we ever be in a position to have such a plan. In the history of mainland South Africa, only one invasive species (a snail at the Cape Town harbour) is thought to have been eradicated – that is, that it is no longer found within South Africa. It may be possible to eradicate the Himalayan thar (currently invading on Table Mountain), and remarkably good progress is being made to eradicate the invasive house crow from India (although the likelihood of re-invasion from neighbouring states is extremely high). But in terms of invasive plants, mainly because of the difficulty of eradication before the plants set seed, no eradication has taken place, and those species that we are targeting for eradication may take decades to do so. Eradication will be the exception, and never (regrettably) the norm.

[26] http://www.invasivespecies.gov/global/CMR/CMR_documents/NISC%20Control%20and%20Management%20Guidelines.pdf

[27] Affidavit signed on 30 July 2013 and filed in response to application brought in the Durban and Coast Local Division of the High Court by the Kloof Conservancy under case no. 12667/12 for an order directing the DEA to publish lists of invasive species. http://www.kloofconservancy.org.za/alien-busters/enforcement-project/

As he points out later in the same affidavit other countries with many more resources than us have had a similar lack of success in eradicating invasive species. There can be little point in destroying an industry built around an invasive species if the sacrifice delivers no actual significant return in terms of biodiversity protection and enhancement.

The harsh language of COP 6 Decision VI23, notwithstanding, the overall approach of the Convention is a cautious one. Thus:

1. member countries must align their efforts at complying with the convention in accordance with its particular conditions and capabilities;
2. The Convention contemplates that member countries will adopt strategies at doing so;
3. The focus is on ecosystems; and
4. The approach is more carrot than stick, the emphasis being on education, promoting awareness and providing incentives.
5. The adoption of an integrated management approach takes threats to biodiversity into account when considering any development that may have a significant environmental impact.

This approach is illustrated for example in the preamble to Council regulation EC no 708/2007 which opens with the following acknowledgements:[28]

1. Member countries obligations in terms of Article 6 of the Convention.
2. The fact that aquaculture is a fast growing industry that delivers considerable economic and social benefits.
3. The fact that the propagation of alien and even invasive species is an important driver of that industry and its growth.
4. The importance of protecting member countries biodiversity.
5. The need to develop a policy framework that brings balance to this.

And as I have already mentioned, this resulted in rainbow trout, bass and carp being excluded from the controls required under the directive.

This in relation to fisheries has been termed the Ecosystem Approach to Fisheries or EAF. This is how the United Nation's Food and Agriculture Organisation described that approach:[29]

> *As a primary goal of an ecosystem approach is "to balance diverse societal objectives", social, economic and institutional information form an essential component of the information necessary for policy making. Such information is essential in order to evaluate the various benefits and costs related to any management decisions. Such benefits and costs include positive and negative externalities of ecosystem-based management as well as the benefits and costs directly incurred by individuals.*

THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT: BIODIVERSITY

Unfortunately the NEM:BA does not follow this admirable approach.

[28] http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_168/l_16820070628en00010017.pdf
[29] Human dimensions of the ecosystem approach to fisheries: an overview of context, concepts, tools and methods, 2008 see http://www.fao.org/docrep/010/i0163e/i0163e00.htm

1. Instead of focussing on ecosystems The NEM:BA adopts a "one size fits all" approach with the result that:
    a. Once a species occurs naturally anywhere in South Africa it cannot be alien irrespectively of how many eco systems it has been introduced into within South Africa.
    b. Once a species is invasive anywhere in South Africa it is invasive throughout South Africa irrespective of the fact it isn't.
2. Instead of establishing priorities based on the severity of an environmental threat, the resources available to deal with it and the likelihood of success, all alien species must be controlled and all invasive species either eradicated or discouraged throughout South Africa. This has not changed with the amendments that became law on 24 July this year[30].
3. No incentives are offered for promoting biodiversity. The mechanisms employed in the management of the NEM:BA are coercive. Thus landowners must, under threat of prosecution, pay for the eradication of invasive species on their properties even if they are not to blame for this and despite the fact that the original polluter may have been government.

The position becomes much worse when you look at the attempts that have been made at implementing the NEM:BA. The latest took place in July 2013 when the NEM:BA was amended and the Minister of Environmental Affairs:

- published a list of:
    - exempt alien species as required by section 65 of the NEM:BA;
    - prohibited alien species as required by section 67(1) of the NEM:BA; and
    - invasive species as required by section 70(1)(a) of the NEM:BA.
- Promulgated regulations, the implementation of which was delayed to a date to be determined by the Minister.

She did so under the threat of an application brought by the Kloof Conservancy in EThekwini to force the Minister to:

- *publish and apply nationally the national list of invasive species that the second respondent was required to publish under section 70(1)(a) of NEMBA by, at the latest, 31stAugust 2006, but which the first respondent has never done;*
- *15.1.2. publish the regulations requisite to give full and proper effect to the provisions of chapter 5 of NEMBA;*
- *15.2. ensure that all organs of state in the national, provincial and local spheres of government comply with their duties and the law in relation to Invasive Alien Species (IAS), in particular IAPs, on public land;* [31]

Also by publishing national lists of invasive species before the Act was amended, the DEA took advantage of the one size fits all approach. The changes brought in by the NEMLA would have

[30] The National Environmental Management Laws Amendment Act, 14 of 2013 or (NEMLA) became law on 24 July 2013

[31] Paragraph 15 of the Kloof Conservancy founding affidavit. http://www.kloofconservancy.org.za/alien-busters/enforcement-project/

allowed the DEA to categorise species as invasive by area rather than listing, as they did, certain species as invasive throughout the country because they were thought to be invasive somewhere in the country.

There was also no attempt to comply with the principles of cooperative governance laid down in the constitution. For example:

- The already chaotic provincial laws have been left in place resulting in a situation where NEM:BA adds to the confusion rather than addressing it.
- Substantive provisions of the NEM:BA have been brought into force without the necessary regulations or systems in force to administer those laws.
- Significant misalignments exist between the NEM:BA and the provincial laws to the extent even that what is permitted and lawful at provincial law is a criminal offence under the NEM:BA.

The good governance principles prescribed by the NEMA were also ignored. For example:

- No consideration given to the adverse economic and sociological impacts of listing economically useful species as invasive;
- The interests of affected and interested parties were not considered. They were not even consulted.

It is in my view a most unfortunate piece of legislation.

An indication of just how unfortunate the NEM:BA is that fact that the DEA is still not able to give effect to chapter 5 which deals with alien and invasive species despite the elapse of nearly 10 years after it came into being.

This is because when you get down to it the NEM:BA is unworkable and everything that has happened in the last 10 years bears testimony to this fact. Let me demonstrate a part what the problem is.

I'll start with what is meant by alien.

- A species is alien if it has been introduced in the Republic as a result of human activity[32]. Human activity in this country goes back at least 100 000 years.
- Nearly everything we eat is alien under this classification[33]. Very few food crops are indigenous.
- It is a criminal offence punishable by up to ten years in jail or a fine of up to R10 000 000.00 to carry out a restricted activity in respect of an alien species unless that species has been

[32] See definition of alien read with the definition of indigenous.

[33] Very few food crops are indigenous. DAFF has identified the following indigenous food crops, namely pearl millet, grain sorghum, cow pea. Bambara ground nut, mung bean, cleome, amaranth, black jack, jew marrow, marama bean, marula, red milkwood, mobola plum, wild medlar, num num, Kei apple and monkey orange. See http://www.nda.agric.za/docs/Brochures/Indigfoodcrps.pdf Note: The same publication also identifies cassava and amadumbe as indigenous but they are not. Amadumbe comes from the East. See http://www.daff.gov.za/docs/Brochures/Amadumbe_1.pdf Cassava coms from the America's. See http://www.cgiar.org/our-research/crop-factsheets/cassava/

exempted by the Minister or you have been issued with a permit allowing you to carry out that restricted activity[34].

- Restricted activities in relation to alien species are similarly broadly defined to include pretty much everything including farming through to sale and possession.[35]
- Incredibly this regime has been in force since 1 April 2005 when section 65, which deals with restricted activities in respect of alien species, came into force.
- This makes all of us criminals because this position only changed on 19 July 2013 when the Minister exempted any restricted activities carried out in respect of alien species brought lawfully into the Republic provided they are not also invasive.
- Apart from the ludicrousness of this situation it is simply inconceivable in a constitutional democracy such as ours that one's right to lawfully feed oneself and indeed the nation exists at the discretion the Minister of Environmental Affairs.

Now onto the problem with so called invasive species.

- Our definition of an invasive species is not that different from the American one. And it is tempered by the fact that a species is only invasive if the Minister of Environmental Affairs lists a species as such after following a public consultation process.
- Thus a species is invasive if *it threaten ecosystems, habitats or other species or have demonstrable potential to threaten ecosystems, habitats or other species and may result in economic or environmental harm or harm to human health.*[36]
- However once listed the consequences are horrendous.
    - In the absence of an exemption or a permit restricted activities a criminal offence punishable by up to 10 years in jail or a fine of up to R10 000 000. 00.
    - Furthermore anyone who is in control of such a species must take steps to control and eradicate species to prevent it from spreading.
    - Control in this context means:[37]

        (a) to combat or eradicate an alien or invasive species; or

        (b) where such eradication is not possible, to prevent, as far as may be practicable, the recurrence, re-establishment, re-growth, multiplication, propagation, regeneration or spreading of an alien or invasive species.

One would think that this would encourage a measure of caution around the listing of what is invasive. After all, the Act does not allow a prioritised approach to the control of invasive species.

The following from the affidavit Dr Guy Preston deposed to in the Kloof Conservancy matter.

[34] Section 101 read with 102.
[35] Section 65
[36] See definition of invasive species.
[37] See definition of Control.

28.

With 346 (three hundred and forty-six) potentially listed invasive alien plants, and many more than that being listed or considered for listing across the other taxa (animals and microbes), there are simply not the resources to go after all invasive alien species, even if it were practically possible to do so.

How he gets to that number is unclear unless it includes prohibited as well as alien species. I count some 192 species that have been listed as invasive. When you consider that all organs of state in all spheres of government:

- must prepare plans detailing an invasive species monitoring, control and eradication plan for land under their control; and that plan must in relation to each of those 192 species that may occur on that land; and
- that 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 such infestation;
    - a status report on the efficacy of previous control and eradication measures;
    - the current measures to monitor, control and eradicate such invasive species;
    - measurable indicators of progress and success, and indications of when the control plan is to be completed;

one begins to get a sense of the scale of the task at hand[38]!

This is not the end of the matter. Section 73 imposes a very onerous duty of care on owners of land where invasive species occur. A person who is the owner of land on which a listed invasive species occurs must:

- notify any relevant competent authority, in writing, of the listed invasive species occurring on that land;
- take steps to control and eradicate the listed invasive species and to prevent it from spreading; and
- take all the steps that may be required in terms of a directive issued by a competent authority to prevent or minimise harm to biodiversity.

Now a duty of care gives those to who the duty is imposed a legal right of action against anyone who fails to discharge that duty. This is underscored by the National Environmental Management Act

[38] Section 76 of the NEM:BA

which gives the general public a very strong right to enforce these rights, including the right of criminal prosecution[39].

The Kloof Conservancy relied on these provisions of NEMA when they applied to court for an order forcing the DEA to publish lists of invasive species. That is just the tip of the ice berg. Everyone can sue anyone under this law. Environmental activists could for example go to court forcing compliance with the NEM:BA even where the DEA regards this as a low priority. Foreign fish farms could go to court seeking an order closing down South Africa's trout hatcheries. The list is endless.

The costs of compliance will be ruinously high.

Again I refer to Dr Guy Preston's affidavit and paragraph 14 where he said that his department has spent R85 000 000.00 trying to remove triffid weed from the Hluhluwe Imfolozi park. This is what he said:

> the return on investment. (As an example, we have spent over R85 000 000.00 (eighty five million rand) in that Park alone, trying to control another catastrophic invader, the triffid weed, *Chromolaena odorata*.) If this is the extent of the problem in a Park like Hluhluwe-Imfolozi, it is easy to imagine the challenges in controlling invasive alien plants in a maze of roads and gardens and public open spaces in a city like eThekwini.

But that like it or not is what the NEM:BA requires every land owner to do.

One would have expected, given what is set out above that at the very least prudence should dictate that Government should limit the impacts of these risks by adopting a frugal approach to the listing of invasive species. Much like the Americans one would expect them to look for the best bang for buck.

But this is not the case. The whole listing exercise has been approached with a reckless abandon that pays no regard to the risks associated with listing a species as invasive.

It seems that the DEA thinks that it can adopt the kind of prioritised approach followed by other countries. Hence the following remarks at paragraph 21 of Dr Guy Preston's affidavit:

[39] Sections 32 and 33 of the NEMA.

Regulations in the Branch Environmental Programmes. However, capacity will have to be increased considerably. **DEA** has therefore, decided to take an incremental approach in dealing with the prevention of introducing invasives into the country, by focusing on certain key entry points.

But the NEM:BA does not allow for an incremental prioritised approach nor does it seem that this relief will be in any event granted to the private sector.

At paragraph 30 of his affidavit in the Kloof Conservancy matte Dr Guy Preston says work is being done to recommend additional measures in terms of which landowners will need to get an invasive species clearance certificate before they can transfer land in the same way that a clearance certificate is presently required in terms of the electricity health and safety regulations.

The fact is that the listing of a species as invasive imposes control and reporting obligations that far exceed the resources available to deliver on these obligations.

A number of commercially useful species have been listed as invasive. Amongst them are trout, bass and carp. This was done across the country (even though it is acknowledged that trout are not invasive in many areas of South Africa) and without the necessary consultation required by the NEM:BA and furthermore against the backdrop of regulations that are so flawed that they are now being rewritten.

Dr Guy Preston has sought to reassure stakeholders that it is not the DEA's intention to harm stakeholders who offer a positive utility.

This is what he wrote in an e mail to the Chairman of the Federation of South African Fly Fishers:

> *We certainly have no intention to harm an industry that has positive utility, but that does not mean that we shall allow new developments (unless our risk assessment, including a cost-benefit assessment, demonstrates that it is appropriate to expand the demarcated areas, or perhaps to modify the restricted activities for these species). That said, it cannot be that those who profit from the utilization of invasive alien species should have the costs borne by others. We shall thus look to your organization, and to others profiting from this demarcation, to work with us to limit the damage caused by trout species, and other invasive alien species, and notably to prevent their introduction into systems where they do not occur. We also would be looking to priority areas in which it may be appropriate to try to locally eradicate invasive species.*

It has to be said that is complete nonsense. The definition of control is incompatible with this kind of approach. The NEM:BA does not allow a prioritised approach to control. This is underscored by:

- section 91 which only allows a permit to be issued exempting a restricted activity in respect of an invasive species if inter alia the invasive potential of the species is non-existent or negligible. Of course if that is the case the species should not be listed as invasive.

- The draft regulations that only permit a licence to be issued for effectively one year[40].

The recently published Aquaculture Policy Framework Document contemplates that trout hatcheries will operate under the NEM:BA licensing regime. But that regime does not allow hatcheries to be licenced and even if they are the licences are too tenuous and short lived to allow hatcheries any chance of being financially viable.

The same is true of trout tourism businesses. The dams they stock and fishing they offer are both restricted activities under the NEM:BA. Permits are required and these can only be obtained for a year.

The NEM:BA was recently amended to allow the Minister to exempt certain activities in relation to invasive species.[41] It is doubtful that this amendment is lawful as it defeats the purpose of a listing a species as invasive in the first place. It is a case of Government passing a law saying everyone is a criminal unless a Minister gives them a certificate saying they are not.

The NEM:BA is a grotesque over kill that seeks to address a perceived disease without any regard to the health and safety of the patient.

But perhaps its single biggest single flaw is that it is an Act built on coercion. It is appropriate at this time to remember that Mandela taught us that you must trust others so that they may trust you. This lies at the heart of COP 6 Decision VI23 as well. Guiding Principal 6 stresses the importance of garnering public support by a process of education and creating public awareness. Article 11 obliges countries as far as possible and appropriate to implement economically and socially sound incentive measures. The NEM:BA has eschewed this eminently sensible approach in favour of a regime that will see transgressors being locked up for as much as 10 years or fined up to R10 000 000.00 for contravening its provisions.

This is an Act borne of anger and built on distrust. It makes the people of South Africa the enemy and the activities we have undertaken since the beginning of human existence potentially criminal. It's a case of kragdadigheid returned with a vengeance. Now this sort of black heartedness has consequences and these can be seen in the way the DEA has tried to implement the Act.

This is evident in the lack of transparency which has attended the recent publication of the regulations and the exempt alien species and invasive species lists. The NEM:BA requires that this be done by way of a consultation process that includes public participation. There was none. Instead these documents were treated as confidential until just before their publication. Key information such as the legal and factual basis for listing species as invasive has been withheld. No investigations into the economic impacts were undertaken, either on businesses affected by a listing or of implementing the NEM:BA itself. The DEA has refused to justify its decision either on a legal or on an ecological basis saying merely that its science is good[42].

[40] Regulation 29 allows a the issue of up to a five year permit to be issued in respect of the possession of an alien species but the maximum length of a permit allowing a restricted activity is one year.
[41] NEMLA.
[42] There is some evidence that Dr Guy Preston believes that the economic impacts can be justified because the CSIR calculated that the benefits of the Working for Water Campaign in terms of water and grazing alone amount to 453 billion rands. See paragraph 17 of Dr Guy Preston's Affidavit. Note: This study has been

I can go on and on in this vein, talking at length about the inappropriateness of listing economically useful species without an assessment of the risk and benefits or economic impact, the unseemly rush to list before the Act changed to allow for listing by ecosystems, the double standards that are evident in the fact that other economically useful species that are more harmful than trout, if indeed trout are harmful at all, the environmental benefits of trout given the alternatives to this land use, the double standard that the DEA applies to itself and everyone else, and so on and so on.

CONCLUSION

The harsh reality is that this is a bad law that is fundamentally and fatally flawed. It is too far gone for the kind of patch up job that the DEA has been attempting. Further changes to the regulations also won't assist. It cries out for a rewrite.

Not doing so will drag the DEA further down their current path of acting as a law unto itself, making it up as they go along with complete disregard to the rule of law and the Constitution.

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criticised and even Dr Guy Preston think this number is overstated though he again relied on it in an interview with the new age. See http://thenewage.co.za/blogdetail.aspx?mid=186&blog_id=2934.