Some thoughts on the future of fresh water recreational angling In South Africa

By Ian Cox

Introduction

The possibility of large dams such as Van der Kloof (the old PK Le Roux dam) and others being developed for aquaculture and for the upliftment of impoverished local communities is meeting opposition from influential elements within the recreational angling community including some fly fishers. These anglers are concerned that allowing other stakeholders access to these and other dams either for the purposes of aquaculture or fish harvesting may impact negatively on recreational angling.

These anglers are critical of other stakeholders who seek to make use of this resource who they often accuse of damaging the resource. Thus environmental concerns are used to prevent other stakeholders from gaining access to the resource. In this way the current status quo in which recreational anglers enjoy near exclusive rights to the resource is maintained.

This makes South Africa unique on the African continent where this resource is largely exploited for the benefit of local communities. We need to ask if the South African approach can be justified. I don't think it can.

I am concerned that opposition by recreational anglers to sharing this resource with other stakeholders including local communities is short sighted and ultimately damaging to the long term interest of recreational anglers and indeed the environment.

The purpose of this article is to look a little more deeply into these issues and perhaps provide some ideas regarding where recreational angling should be going. This article is written in my personal capacity the hope being that ideas I express, albeit controversial, may stimulate debate around an important but largely ignored aspect of recreational angling. **The importance of recreational angling.**

Nothing I say in this article should be seen as downplaying the massive contribution recreational angling makes to the health and wellbeing of South Africans. Fresh water recreational angling is one of South Africans favourite outdoor leisure activities. The total value of recreational angling was estimated at just shy of 18 billion rands back in 2007. Two thirds of the 2.5 million or so recreational anglers that were counted for that study were fresh water anglers. Recreational angling is clearly an important contributor to the health and wellbeing of South Africans. It is equally clear that as such it deserves to be nurtured and grown.

Whose fish are they anyway?

I believe we as recreational anglers often overlook a key question when defending the interests of recreational angling. That key question is who owns the fish?

The answer for the most part is nobody which is another way of saying everybody and as I will show therein lies a huge challenge for recreational angling.

Fish are regarded by South African common law as being wild animals. Wild animals are not owned by anyone (res nullius is the legal term) until they are caught or otherwise contained by someone with the intention of exercising ownership over them.

The easiest way to acquire ownership over a wild thing is to hunt it and kill it. The hunter becomes the owner of his prey unless someone else owns it already. Another way is to confine that animal to an area you control. One achieves this on land by fencing wild animals in as we do in game reserves or game farms. This isn't so easy when you are dealing with fish. Impounding a river behind a dam or a weir is not sufficient to contain fish and thus establish ownership over them. The fish can escape the impoundment and thus are not sufficiently controlled in my view. The requirements for establishing ownership over fish still needs to be definitively established but in my view will take place only if impoundment is landlocked in the sense of being unconnected to a river that is navigable to fish or cut off from that river by a permanent barrier that is impervious to fish.

I think that this is one of the reasons why the trout industry has thrived as a business. The fact that many of our trout fisheries are landlocked means that the landowner owns those trout. Stocking those waters represents a considerable investment. As property they have value and value is the bedrock of business. Thus trout as an angling species has been privatised to a very large extent and I think this explains the value that is placed on the fishery by those who benefit from it.

This is not the case with other fresh water fresh targeted by recreational anglers. The major fisheries that underpin recreational angling are for the most part found in in river systems including large dams interconnected by rivers that can and are freely navigated by fish. These fish are owned by no one which I think has resulted in their value being understated especially now that bass and carp (which make up the bulk of South Africa's fresh water recreational fishery) have been listed as invasive species in terms of the National Environmental Management: Biodiversity Act (the NEM:BA).

I will deal with this later but I think the science based approach of failure of the Department of Environmental Affairs (the DEA) and its refusal to take social and economic risks and opportunities into account in carrying out their mandate constitutes an egregious error which if perpetuated is going to cost South Africa dearly.

The fact that these species are wild and thus owned by no one means they become a national resource that must be managed by the State. As I hope to show the State cannot just manage these species for the benefit of indigenous biodiversity or recreational anglers. The State as custodian is obliged to manage this resource sustainably for the benefit of all South Africans.

The nature of custodianship or trusteeship

The importance of custodianship was emphasised in the case AgriSA brought against the Minister for Minerals and Energy regarding the separation of mining rights from ownership of the land on and under which minerals are found. The Chief Justice began what has been correctly described as a lucid and far reaching analysis of what is a very difficult area of our law with these words.

> *South Africa is not only a beauty to behold but also a geographically sizeable country and very rich in minerals. Regrettably, the architecture of the apartheid system placed about 87 percent of the land and the mineral resources that lie in its belly in the hands of 13 percent of the population. Consequently, white South Africans wield real economic power while the overwhelming majority of black South Africans are still identified with unemployment and abject poverty. For they were unable to benefit directly from the exploitation of our mineral resources by reason of their landlessness, exclusion and poverty. To address this gross economic inequality, legislative measures were taken to facilitate equitable access to opportunities in the mining industry.*
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> *That legislative intervention was in the form of the Mineral and Petroleum Resources Development Act (MPRDA). Its commencement had the effect of freezing the ability to sell, lease or cede unused old order rights until they were converted into prospecting or mining rights with the written consent of the Minister for Minerals and Energy (Minister). It also had the deliberate and immediate effect of abolishing the entitlement to sterilise mineral rights, otherwise known as the entitlement not to sell or exploit minerals. This ought to come as no surprise in a country with a progressive Constitution, a high unemployment rate and a yawning gap between the rich and the poor which could be addressed partly through the optimal exploitation of its rich mineral and petroleum resources, to boost economic growth.*

The MRDPA changed our legal regime in that it placed mineral rights that had hitherto being privately owned under the custodianship of the State on behalf of all the people of South Africa, and on the basis that these resources constitute the common heritage of all South Africans.

The situation that pertains to South Africa's wild fish resource is easier to determine as this idea of fish being part of South African's common heritage is already part of our law and has been so for hundreds of years.

Thus one finds this principle of trusteeship in most conservation legislation. It is for example implicit in the Water Act and the national Environmental Management Act (the "NEMA") whose guiding principles include that the environment is held in public trust for the people of South Africa. Similarly the National Environmental Management: Biodiversity Act (the NEM:BA) speaks of the State's trusteeship of biological diversity.

The obligation placed on the State to manage fish for the benefit of all South Africans is particularly onerous because South Africans do not own water. Landowners may own the land under rivers but the water itself is a national resource held in trust by the State for the benefit of all South Africans. This for

example is why the Department of Environmental Affairs (the DEA) is particularly concerned that it manages the stocking of rivers to trout. The DEA correctly points out that the State is responsible for ensuring that this is done in way that does not cause harm to the water resource that has been entrusted to its care by the people of South Africa and for their benefit. However I fear that its approach by overemphasising the importance of conservation intends to ignore the developmental and transformational imperative that lies at the heart of South Africa's Constitution.

The management of South Africa's Fresh water fisheries – The status quo

I think it fair to say that South Africa's wild freshwater fishery is largely unmanaged. South Africa does not have a policy that informs the management of this resource. There is no legislation such as the Water Act, the Minerals and Petroleum Resources Development Act or the NEMA that gives guidance on the State's obligation as custodian or trustee of this resource. There is no licensing or quota regime such as that which applies to salt water angling. Indeed very little data exists which can be used by the State in how best to manage this resource. Research such as it is ad hoc and hampered by a lack of reliable information. There has been some transformation in management but the status quo as is existed before 1994 remains largely intact.

That status quo is driven by access which, as was the case with South Africa's mineral and water resources, unfairly benefits land owners in favour of other South Africans in the allocation of this resource.

I think this unfair distribution of the resource is exacerbated in the case of South Africa's wild fresh water fish resource by the practice of proclaiming nature reserves around our larger dams. This places the land under the control of the nature conservation authorities whose policy is conservatory rather than developmental. Thus conservation authorities have fenced off these reserves thereby sterilising the wild fresh water fish resource inside those reserves.

This policy has been extraordinarily beneficial for fresh water recreational angling whose angling activities concentrate on these dams and who have, as a result, formed a close symbiotic relationship with the conservation authorities who frequently manage these reserves for the benefit of recreational anglers.

The alliance between conservation authorities and fresh water angling

The partnership between fresh water angling and South Africa's conservation authorities is a longstanding one that has paid handsome dividends to both parties.

The development of our provincial conservation agencies often grew out of the State's desire to develop recreational angling both as a leisure activity and for the tourism angling promotes. Thus, for example, in KZN provincial fisheries management morphed into what is now Ezemvelo KZN Wildlife. So to the financial viability of many of South Africa's dam based nature reserves are underpinned by the angling they offer.

But I suggest there is also a dark side to this endeavour. What or more importantly who were these fisheries being protected from? The stock answer given by conservation authorities is that their mandate is to protect these fisheries from being over exploited through poaching and the insidious creep of commerce. This is true but it is also true that conservation authorities have been at the forefront of denying the majority of South Africans access to their lawful share of this resource. The truth is that conservation and apartheid once marched hand in hand and recreational angling has benefited massively from this.

Race no longer defines rights to access to South Africa's wild fresh water fisheries as it once did but poverty does and in this country race and poverty often amount to the same thing. And so it is that environmental laws are still creating inequitable barriers that lock poor and normally black people from access to South Africa's wild fresh water fisheries that their wealthier and often not so black citizens continue to enjoy as before.

I fear that the inequitable apartheid era practice of discriminating against South Africans when in the distribution of this resource continues to this day albeit under a different guise.

For example it has been suggested that trout anglers should support the listing of trout as invasive because the permitting regime that that listing will introduce will operate to protect the fishery from other stakeholders, especially marginalised local communities who are increasingly seeking to exploit South Africa's wild fresh water fish resource.

What is happening at present at Jozini is another example of this. Tigerfish have been included on the TOPS list of threatened species though there is no legitimate basis for this. The fact of that listing is now being used to protect the recreational fishery by persecuting local communities who harvest the dam in terms of what was once a State backed initiative.

It also cannot be said that these dams have outstanding conservation value. They are after all manmade constructs that impound artificial habitats. Indeed there is a lot to be said for the claim that dams have the potential to cause a great deal of environmental damage. Yet anglers are quick to praise the environmental value of these artificial habitats.

I think this is a claim driven more by a short-sighted self-interest than fact.

Some thoughts on the negative impacts of the partnership between recreational angling and conservation authorities

The alliance between conservation authorities and recreational angling has clearly been beneficial to the development of recreational angling especially as the development of the alien fisheries such as bass, carp and trout. Indeed those fisheries and the sport of recreational fresh water angling would not be the valuable resource they are today had that alliance not existed.

However I question if this is still the case. The development of these fisheries was once an important part of a conservation authority's mandate but this is no longer the case. On the contrary conservation authorities now proclaim these fisheries as dangerous pests. Indeed they have gone so far as to proclaim

the bass and carp as invasive. These species comprise the bulk of what South Africa's recreational anglers target and as such are a hugely valuable economic resource.

The DEA has said more than once that they cannot eradicate these species. Indeed they are not even going to try. Yet they insist that these species must be declared invasive. Yet the DEA still insist that it must manage these species as invasive. This begs the question; manage to what purpose?

There can be no question that listing a species as invasive devalues that species as a resource. The trout industry saw this with the attack on trout which has resulted in a massive decline in the value of trout based investments and thus the tourism potential, of the trout industry. Just the threat of an invasive listing has thus seriously retarded the development of rural communities in South Africa's trout waters.

I suggest that the value wild fresh water fish species that have been listed as invasive such as bass and carp has and will impact negatively on the value of their value as a fisheries resource. Both species can and are being exploited outside recreational angling as a food source. Both probably have greater developmental potential both through aquaculture and the harvesting of the resource as a food source than other species currently being beneficiated through aquaculture such as trout and tilapia. But their listing as invasive significantly retards the development of this potential.

Listing these species as invasive does however protect the existing status quo that is of course if our courts are going to let the DEA list a species as invasive and then do nothing to eradicate them. Early signs out of the judgement in the Kloof Conservancy case are that this is not going to happen and that the DEA is going to be forced to comply with the letter of the NEM:BA. This means that the DEA must formulate management plans that set out how the eradication alternatively the prevention of these species is going to be achieved.

This reality is likely to come as a nasty shock to those who have seen an invasive listing as a means to protect what is an exclusive right enjoyed by recreational anglers.

Therefor I question the wisdom of what has been done. Surely South African's would benefit far more if these species are seen as a valuable resource to be managed so that South Africans can benefit from that resource rather than as a pest that must be eradicated at the cost of the taxpayer?

I am also concerned that listing a species as invasive makes it prohibitively expensive to try and commercially exploit this resource. The basic guide to establishing an aquaculture facility that has been produced by the State to assist aquacultures is currently 100 pages long and despite the excellent efforts of the authors to make it simple is bewildering in its complexity. The reality is that aquaculture is being regulated to the point where it is an activity that is only accessible to the very rich and then only if they have a healthy, some might say unhealthy, appetite for risk.

I fear that the partnership that currently exists between recreational angling and environmental authorities is a short sighted one that hides the harsh reality that the current status quo results in anglers enjoying an inequitable share of South Africa's fresh water angling resource. I think it worrying

that some officials in the DEA have taken to calling this constituency “progressive or enlightened anglers”. I would argue that the opposite is in fact true.

I think a lot of damage has already been done as a result of this partnership in that environmental laws are being used to persecute local communities.

The State is legally obliged to manage South Africa’s fresh water fisheries in trust as it were for all South Africans. In my view, the present status quo is an abuse of that trust.

Is the NEM:BA green apartheid?

I was introduced to the phrase “green apartheid” by Mr Juniours Marire. He is a hugely talented award winning doctoral student in the economics department at Rhodes University who is doing research into the economic contribution of trout. Our discussions have challenged my thinking on a number of issues and are contributing materially to a better understanding of this subject.

My understanding of the phrase is however a legal one and is my own.

It starts with the recognition that the NEM:BA is built around the idea propagated by invasion biologists that every species has an area or habitat where it occurs naturally and from which it should not spread as a result of human intervention. Early proto invasion biologists proclaimed that tigers belong in India and kangaroos in Australia. This belief lies at the core of the thinking that informs the NEM:BA.

The NEM:BA defines an alien species as one that has been introduced in the Republic as a result of human activity. It goes on to make any human activity in respect of such species illegal unless that species has been exempted by the Minister of Environmental Affairs or the activity has been authorised by the Minister of Environmental Affairs in terms of a permit. So it is according to the NEM:BA every species has a habitat, a homeland if you like, where they exist naturally as of right but outside of which they must not go without the authority of a ministerial permit or exemption.

Sound familiar? It should. That is how South Africa tried to manage black people prior to 1994. It may well be, as Mr Marire suggested, a case of “green apartheid”. I think there is a lot in current biodiversity management practice that supports this view.

Apart from the NEM:BA itself, there is the wide spread use of criminal sanction often around ordinary human activity as a means of control. The use of fear is also widespread. I have seen countless presentations where the dangers of famine weed suddenly morph into trout. There is an overemphasis on control without any accompanying guarantees of a beneficial result. There is no underlying logic to what is being legislated. Thus feral pigeons are invasive but this is not so says the DEA if they are owned by a pigeon fancier. This is despite what the law says to the contrary. Similarly some gum trees are invasive but others are not even though they are of the same species and are found in the same area. One cannot help but think of the phrase honorary white in the case of these exceptions. There is also a surprising lack of science despite the claim that the process is science based. For example the trout industry was told that it was beyond the means of the DEA to advise South Africans regarding the basis for declaring each species invasive. This inability to explain ones actions in a rational manner was a

hallmark of the apartheid state. It should also be a concern for the DEA given the recent judgement of the Gauteng High Court in a matter between the Border Deep Sea Angling Association the Department of Agriculture Forestry and Fisheries and which struck down the DAFF's attempt ban on fishing for Red Steenbrass because it could not establish a rational basis for this.

To my mind it is an inescapable truth is that much of what we see in biodiversity thinking is more in tune with old order command and control apartheid thinking than the values enshrined in the new constitution.

I think this explains why the NEM:BA has been so hard to implement. I think a very strong case can be made out for the proposition that the NEM:BA is incompatible with our new constitutional order.

I think the NEM:BA propagates the unreal perspective that human impacts and thus I suggest human beings are environmentally alien. If other animals such as birds can introduce a species into an area without that species being declared invasive, why cannot humans. This is not to suggest that the introduction of new species into an area should not be managed. On the contrary such introductions must be managed but as a necessary incident of human survival rather than on the basis that our impacts are alien.

I cannot reconcile the constitutional principle that human dignity must be protected and nurtured with a law that punishes ordinary human behaviour (such as agriculture for example) as alien. I see this perspective as skewed. What is worse is that I think it results in a skewed and unrealistic perception of environmental risk.

I think South Africans need to eschew the discriminatory fundamental extremism that is inherent in the indigenous is good alien is bad dogma and replace it with one that sees human beings as part of the environment.

The Constitution and the developmental State

The Constitution does not require that South Africa protect its biodiversity for the sake of biodiversity itself or that the environment is managed for its own sake. The Constitution requires that this is done in the interests of ensuring an environment that is beneficial present and future generations of South Africans. The environmental right enshrined in the Constitutional is a developmental right. This is underscored by the NEMA which is the umbrella law that sets the principles that govern the formulation and implementation of all other environmental laws.

I fear that this is overlooked in pursuit of what far too often an exclusively conservation mandate driven as I have said by old order apartheid thinking.

A regime promoted by conservationists that sterilises resources that should be used for the benefit of all South Africans is the exact opposite of what the Constitution requires of South Africans. This has been underscored by the Constitutional Court who in the recent AgriSA judgment that I mentioned earlier.

Just as it is undesirable to sterilise South Africa's mineral resources through skewed patterns of land ownership, so is undesirable to sterilise our wild fresh water fisheries resource by listing them as invasive under the NEM:BA or by preventing access to viable commercial fisheries by shutting them up in into nature reserves.

This is not just a matter of balancing the consequences of the past with the new constitutional order. It is also a necessary response to what South Africa is going to be in say 20 years' time.

Absent some major catastrophe, South Africa in 2034 will have a population of some 65 to 70 million people 70% of whom will live in cities. Dealing with that reality is going to be a huge challenge given that the country has exploited most of its existing water resources and that agri-business is now advising that the ability of technology to significantly increase crop yields has about run its course, not to mention the decline of mining as a contributor to our economy and the increase in the real cost of energy.

Increased contestation for resources is the inevitable consequence of population growth. We see this more and more around nature reserves which are coming under increasing pressure to drop their fences and allow the neighbouring communities to share in the resource. Politicking around land is becoming increasingly strident. Our fresh water fisheries are not immune to this. Subsistence angling is a rapidly growing industry and this is increasingly resulting in conflict as that industry competes with the status quo.

The constitution places a heavy burden on environmental authorities to align their thinking and actions with the developmental agenda of the State. The constitution does not demand that the environment must be protected from human activity. It must be protected for human activity and environmentalists need to come to terms with this.

Conservation authorities, especially those involved in the management of South Africa's biodiversity need assist the State in developing South Africa's natural resources in a sustainable way that promotes human health and wellbeing rather than sterilising these assets. This means that South Africans need to find ways of sharing these resources in a sustainable way.

The meaning of sharing

Sharing is what humans naturally do in times of crisis out of necessity in order to survive. Intelligent sharing is what civilized humans do in order to avoid the crisis and the destruction that often accompanies the animal instinct we all have as individuals to survive.

Sharing is as I have already pointed out a legal obligation insofar most fish are concerned. Sharing is also very much part of State thinking. It is the bedrock of Ubuntu and the cornerstone of redistribution policies and the National Development Plan. Sharing especially insofar this involves the development of previously marginalised communities must not be confused with charity or its destructive cousin, idiot compassion (sic charity that makes things worse). I also suggest that sharing is the bedrock of maintaining a sustainable resource. The bedrock of the ANC support base is increasingly located in rural

areas. Rural poverty is accelerating urbanization which in turn dilutes the ANC political base. Thus providing economic opportunities in rural areas is seen as being key to the ANC staying in power.

Poverty alleviation programs like working for water bring much needed cash to those economies which in turn secure the ANC voter base. But that is not going to be enough. Aid is by itself not sustainable. It is critically important that rural communities establish viable sustainable economies of their own and that the ANC as government is seen to be doing this.

The development of our freshwater fisheries has been identified as one way this can be done and aquaculture is one of the industries that can contribute to this. That is why baseline studies are presently underway into the viability of these projects. The study at Van Der Kloof Dam is just one of them.

This is the start of a process that will lead to a more diverse exploitation of our fresh water fisheries resource outside beyond just recreational angling. That is a reality all recreational anglers are going to have to accept. How we do this will determine how recreational angling fits into the new order of things.

All of this and much more points to the fact that a strategies built on the idea of winners and losers is a failing strategy. We are moving rapidly into a world where the human and non-human detritus of our success will destroy us if we continue to ignore them.

The future

Readers may disagree with me regarding the inherent flaws in the NEM:BA or the nature of the relationship between environmental authorities and the angling community but there can be no doubt that the State is fully aware of the inequities that are inherent in the present distribution of fresh water angling opportunities.

I think the practice of sterilising our fresh water fisheries in nature reserves needs to be reconsidered. I question if the DEA is the right department to manage and develop this resource. There is a general recognition that the NEM:BA is a deeply flawed piece of legislation. I think we need to recognise just how deep those flaws go. I am of the view that the NEM:BA is structurally unsound and should be condemned as such.

Our fresh water fisheries are a finite resource that the State is legally obliged to manage equitably for the benefit of all South Africans and not just recreational angling. Hard lessons are being learned regarding the management of our maritime fisheries. Chaotic though that process may be, it is clear that angling rights are going to be redistributed away from just recreational angling.

This does not mean that the value represented by recreational angling must be ignored. It must be recognised as the valuable contributor it is to the health and wellbeing of South African. However it must also be recognised that other legitimate claims exist to the resource that sustains recreational angling and that the resource is not big enough to meet the entire demands place upon it. It needs to be shared in an equitable manner.

How this is done will determine the future of this resource. I think South Africans will reject an inequitable distribution of the resource. That will make the resource unmanageable and thus unsustainable. This must be avoided . The health and wellbeing of South Africans is dependant this this resource being sustainably managed.

Apart from the inherent inequality embedded in the current status quo the simple reality of supplying a growing population with protein is reason by itself to reallocate this resource from its presently skewed distribution in favour of recreational anglers. Fish is a much cheaper and environmentally sustainable source of protein than beef.

Though previous attempts to get this right have been unsuccessful managed harvesting of our fresh water fisheries is one way of making this resource more accessible. Aquaculture offers an alternative to this and perhaps a legitimate offset in the balance that the state must make in allocating our fresh water fish resource in a sustainable manner. Our large dams are obvious candidates for this.

The base line studies at places such as the Van der Kloof Dam that some recreational anglers are now attacking are all about how best to do this.

The way forward

I think it is clear that we need a coherent policy around the management of our fresh water fish resources. I suggest that that policy should start from an acceptance that our fresh water fisheries are largely a shared resource as such they need to be shared sustainably for the benefit of all South Africans

This requires that the State immediately address the appalling lack of information that exists concerning the extent and potential of South Africa's fresh water fisheries. I fear this lack of information is resulting in ill-informed and consequently often unsuccessful decision making. This needs to be remedied so that South Africa can formulate a workable and equitable fresh water fisheries policy.

I suggest particular areas of concern should include:

- Mapping the extent of the existing resource, threats to the resource as well as its potential for growth, its sustainable utilisation and existing and potential future barriers to sustainable utilisation.
- The identification of existing and potential stakeholders and the extent to which they make use of or could make use of the resource.
- Devising an equitable basis for sharing the fishery and for the management of the fishery.
- Within this framework facilitating access by removing or efficiently managing barriers to entry as well as the nature and extent of support that will make a transformation of the fishery possible.

I also suggest though the State needs to take responsibility for this process but must do so in order to facilitate and enable the development of the resource rather than play gatekeeper.

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