

National SEA for Aquaculture Development in South Africa Meeting Notes

National Strategic Environmental Assessment for Aquaculture Development in South Africa

Focus Group Meeting #4

Date: 06 October 2016
Venue: Queen Elizabeth Park Theatre, Ezemvelo KZN Wildlife, Pietermaritzburg
Focus areas: KwaZulu-Natal

Attendees

Name	Organisation	Email
Aadil Osman	KZN DEDTEA	Aadil.Osman@kznedtea.gov.za
Andre Vosloo	UKZN	Vosloo@ukzn.ac.za
Asanda Njobeni	DAFF	AsandaN@daff.gov.za
Clarissa Konar	Lindon Corporation	clarissa.konar@lindon.co.za
Geoff Griffiths	ADA	geoff@bevex.co.za
Ilan Lax	AASA/TSA/FOSAF	ilanlax@gmail.com
Karabo Mashabela	CSIR	KMashabela1@csir.co.za
Krish Govender	Lindon Corporation	Krish.govender@lindon.co.za
Lizande Kellerman	CSIR	LKellerman@csir.co.za
Luanita Snyman-Van der Walt	CSIR	LvdWalt1@csir.co.za
Michelle Pretorius	DAFF	MichellePR@daff.gov.za
Mpho Moilwa	DEA	MMoilwa@environment.gov.za
Neal Naidoo	TNPA	Neal.naidoo@transnet.net
Nqobile Hlabisa	KZN DEDTEA	Ngobile.hlabisa@kznedtea.gov.za
Ntathu Tlale	ADA	tlalen@ada-kzn.co.za
Pat Morant	CSIR	pmorant@csir.co.za
Rechi Dlamini	ADA	dlaminir@ada-kzn.co.za
Simon Moganetsi	DEA	Smoganetsi@environment.gov.za

Apologies / Invited but did not attend

Name	Organisation	Email
Aidan Wood	SACRAA	tagfish@telkomsa.net
Bill Bainbridge	FOSAF	wrbainbr@iafrica.com
Bruce Ellender	SAIAB	b.ellender@saiab.ac.za
Dee Fischer	DEA	Dfischer@environment.gov.za
Frans Swanepoel	TAASA	hunt4u@vodamail.co.za

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Ian Cox	TSA	iancox@coxattorneys.co.za
Jake Alletson	FOSAF / TSA	jallet@telkomsa.net
Neil Stallard	MFF	neil@thefishfarm.co.za
Ntathu Tlale	ADA	tlalen@ada-kzn.co.za
Paul Skelton	SAIAB	P.skelton@saiab.ac.za
Rechi Dlamini	ADA	dlaminir@ada-kzn.co.za
Richard Gorlei	KZN FFA / SAFFA	richard@coindemire.co.za
Richard Viljoen	AQD	rhviljoen@absamail.co.za
Robin Barnes	BRT	rlb@coraldivers.co.za
SF Mkhize	KZN DARD	hodpa@kzndard.gov.za
Simon Bunn	Peak Trout	peaktrout@hotmail.co.za
Skhumbuzo Kubheka	Ezemvelo KZN Wildlife	Skhumbuzo.kubheka@kznwildlife.com
Tom Sutcliffe	TSFF	Sutcliffe@mweb.co.za

List of acronyms

AASA	Aquaculture Association of South Africa
ADA	Agribusiness Development Agency
ADZ	Aquaculture Development Zone
AQD	AquaFarm & Design CC
BRT	Bushman's River Trout
CSIR	Council for Scientific and Industrial Research
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DWS	Department of Water and Sanitation
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
FOSAF	Federation of South African Flyfishers
IDP	Integrated Development Plan
KZN	KwaZulu-Natal Province
KZN DARD	KwaZulu-Natal Department of Agriculture and Rural Development
KZN DEDTEA	KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs
KZN FFA	KwaZulu-Natal Fly Fishing Association
MFF	Mtunzini Fish Farm
PSC	Project Steering Committee
SACRAA	South African Consolidated Recreational Angling Association
SAFFA	South African Fly Fishing Association
SAIAB	South African Institute for Aquatic Biodiversity
SANBI	South African National Biodiversity Institute

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SDF	Spatial Development Framework
SPLUMA	Spatial Planning and Land Use Management Act 16 of 2013
TAASA	Tilapia Aquaculture Association of South Africa
TNPA	Transnet National Port Authority
TSA	Trout South Africa
TSFF	The Spirit of Fly Fishing
UKZN	University of KwaZulu-Natal

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1. Overview of Aquaculture SEA – approach, objectives, scope, key outputs & stakeholder engagement

- Presentation by Lizande Kellerman (CSIR)
- Ilan Lax (AASA/TSA/FOSAF) commented that the tourism component of the aquaculture value chain is not expressed in this SEA process. He further suggested that it is important to consider municipal IDPs e.g. in KZN there is a strong drive to link IDPs to biodiversity, industry and optimal land use. The local and district municipalities need to be included in the SEA process so they can understand the opportunities for aquaculture development and can plan accordingly. He also suggested that engineers responsible for construction of aquaculture infrastructure, and environmental consultants working in the aquaculture industry be included in the stakeholder engagement process. He is of the opinion that votary services need to feed into the province to create a general expectation where one includes all different categories from different spheres in the aquaculture sector.
 - Lizande Kellerman (CSIR) responded stating that local and district municipalities will be involved during the assessment phase in the SEA process once the SEA team has narrowed down the study area and excluded areas that are unsuitable for aquaculture.
- Ilan Lax (AASA/TSA/FOSAF) commented that there are essentially three major risks associated with aquaculture i.e. development and operational footprint, water use (quality & quantity), and biodiversity risks (e.g. hybridization and distribution of alien fish species). He further commented that processing of aquaculture products for food production should not be included in the SEA process as it is a different activity and industry and is separately regulated. Processing is unrelated to producing (farming) the animal species. The only reason why it should be included is when a production facility is located in close proximity of the fish farming operations. These facilities are not interconnected. The considerations around pollution and health are completely different.
 - Lizande Kellerman (CSIR) responded stating that processing was originally not included in the scope of the SEA, but there are various requests to include the processors as stakeholders in the SEA process. This is a matter for reconsideration by the SEA team as not all producers are processors, and not all processors are producers. Producers that also process, especially on their own land thus need to be considered.
 - Asanda Njobeni (DAFF) responded stating that processing is considered to be related to aquaculture (farming/production) just as hatchery is related to a grow-out facility, especially if both facilities are located on the site, hence the identification and development of ADZs where all aquaculture related activities can be integrated and regulated simultaneously.
 - Pat Morant (CSIR) agreed with Ilan Lax that processing should not be part of the scope of the SEA process. He is of the opinion that there is no reason to include

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processing as there need to be two different sets of rules regulating two sets of totally different types of activities.

- Krish Govender (Lindon Corporation) commented that the value chain for aquaculture is very long and Lizande Kellerman (CSIR) responded confirming there is a need to determine what part of the aquaculture value chain is concerned with the SEA process.
- Ilan Lax (AASA/TSA/FOSAF) stated there is a requirement from industry to be represented on the PSC of the SEA project; and also to include investors and veterinary services in the aquaculture sector in the stakeholder engagement process.
- Krish Govender (Lindon Corporation) commented that in Eastern Cape, Limpopo, Mpumalanga and KZN there are various tribal authorities e.g. Ingonyama Trust, who own large portions of land, that also need to be included in the stakeholder engagement process.
- Geoff Griffiths (ADA) commented that the eThekweni Local Municipality is involved in aquaculture development.
- Regarding the selection of priority species to be included in the scope of the SEA, the following comments were received from participating attendees:
 - Trout are currently not considered an invasive species in SA and is an exempted species in terms of regulatory requirements. However, the majority of trout imports are cheaper than local production.
 - Vast majority of trout in KZN is rainbow trout. Brown trout needs colder water. (a pure gene pool of brown trout from Loch Leven are in the Bushman River – there is the opportunity to export back to Scotland where their fish are dying from disease).
 - Trout can generally tolerate colder water, but not easily when the water is warmer than their maximum body temperature.
 - Rainbow trout is produced mainly for food products and stocking. Brown trout is produced mainly for stocking for recreational fishing.
 - There are some Tilapia growers in KZN but it is unknown how many are commercial scale producers. SEA team to contact Danie Steenkamp of the Tilapia Growers Association for more information.
 - The Lindon Corporation is funding a study investigating the potential for catfish farming in KZN; however, proposed catfish farming was discouraged and no funding could be obtained. There used to be a non-commercial catfish farm in the Pietermaritzburg area.
- Jeff: Sharptooth catfish has a reddish brown meat, white flesh catfish in Vietnam is not allowed in SA, invader.
- Jeff: Catfish stock at high capacities of 700 kg/m³, and tilapia at 50 kg/m³. From an economic point of view catfish are 10 x better than tilapia. Fillet out rate for tilapia 30%, you waste most of the fish. Catfish have cartilage not bones with a fillet out rate of 75%. Tilapia is not a good fish to farm from an economic point of view.

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Legislative context for the Aquaculture SEA

- Presentation by Lizande Kellerman (CSIR)
- Geoff Griffiths (ADA) suggested that the separation of marine and freshwater regulation should be considered.
 - Asanda Njobeni (DAFF) responded stating that the Aquaculture Bill provides for both marine and freshwater, hence no need to separate legislation.
 - Lizande Kellerman (CSIR) responded stating that there are generalised activities commonly practiced throughout the aquaculture industry, but there are some activities and certain environmental aspects that only apply to either marine or freshwater aquaculture.
 - Simon Moganetsi (DEA) responded stating that recommendations on splitting marine and freshwater aquaculture resulting from the SEA process may be considered in other branches/units of DEA to develop appropriate tools such as norms and standards.
- Ilan Lax (AASA/TSA/FOSAF) commented that the aim of the SEA is to analyse aquaculture in SA to understand where current operations are, and look at the risks, benefits, and optimum areas where aquaculture can be prioritised. Ultimately the EIA and EMP will be different for different aquaculture species in different areas. He urged the SEA team to keep an open mind and not make assumptions on the environmental requirements, but rather analyse in an unbiased manner the true impacts and risks. In his opinion the NEMA EIA regulations are overkill and are considered over-regulated as it is currently impossible for rural aquaculture facilities to be established whilst trying to comply with the current aquaculture regulation. He further commented that marine aquaculture is premised on the Marine Living Resources Act, based on harvesting and exploitation of wild stocks. Farming of fish and other species is not the same thing. One may take some of the feed stock from the wild and get the appropriate permit, but rearing the fish until it can be processed is an agriculture approach and not an exploitation approach.
 - Simon Moganetsi (DEA) responded stating that it is the objective of the SEA to relax the legislation related to aquaculture. By developing protocols specific to the environmental sensitivity, it will assist in lessening aquaculture requirements in least sensitive areas.
- Ilan Lax (AASA/TSA/FOSAF) alerted the SEA team to the existence of the KZN Conservation Plan and to consider the Trout mapping exercise conducted by SANBI. Land use planning applications need to be planned for the entire country as it will largely intersect with the IDPs and SDFs of the provincial municipalities. The use of biodiversity risk assessments are also to be considered. He also mentioned that there are plans to develop a new provincial Act to replace the existing KZN Nature Conservation Act of 1997 as this Act does not provide for the introduction of fish, but only for the protection of fish. He suggested the SEA team contacts Boyd Escott (Ezemvelo KZN Wildlife) regarding available spatial data on the KZN Conservation Plan and other useful land coverage for different land-uses (SPLUMA). Heather Terrapon (SANBI) could also assist with the mapping of trout in the province.
- Krish Govender (Lindon Corporation) commented that the 2016 State of the World Fisheries Report is currently available. He further suggested that the SEA should consider

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developing countries in the literature review e.g. Egypt, India, Turkey and Vietnam and not only developed countries such as Norway.

2. *Data capture and mapping exercise for aquaculture facilities*

- Presentation by Luanita Snyman-van der Walt (CSIR)
- Rechi Dlamini (ADA) enquired when the DEA screening tool will be available as it will affect some pending decisions on environmental authorisations in the medium term.
 - Lizande Kellerman (CSIR) responded that it will be business as usual in the interim. The outcome of the SEA will feed into the development of the screening tool, but the tool will only be finalised at a later stage following the conclusion of the SEA.
- Based on various questions from participating stakeholders the following environmental attributes and siting criteria will be included as data fields for purposes of the national-scale screening exercise:
 - alien vs indigenous status per species;
 - IUCN/TOPS/SASS status per species;
 - land tenure/uses per facility;
 - catchment details i.e. sub-quaternary scale;
 - conservation status in terms of biodiversity areas;
 - scale of production e.g. the producers that produce only for personal use or “recreation”, excluding subsistence, artisanal or commercial;
 - funding source of a facility i.e. private funding vs government funding;
 - size of labour/work force employed at each facility;
 - a facility status i.e. developing phase, operational phase, decommissioned (failed) phase (SEA team to contact Prof Tom Hecht at DAFF for more information);
 - market localities and potential in proximity of the facility;
 - investment potential of a facility/project;
 - production volumes to indicate production capacity of each facility in a financial year;
 - import and export capabilities of each facility;
- Ilan Lax (AASA/TSA/FOSAF) commented on the importance of including failed project/facilities e.g. hatchery at Lydenburg that were closed. Reopening of these businesses can contribute to new economic potential. Also, he stated that aquaculture is still possible in protected areas, although it will need proper mitigation and management.
- Krish Govender (Lindon Corporation) commented that training capacity and capability on aquaculture can be acquired through research institutions, universities, etc.
- Geoff Griffiths (ADA) commented that there is the potential of using existing facilities to renovate and re-establish aquaculture operations for purposes of community development.
- Ilan Lax (AASA/TSA/FOSAF) commented that five years are too little time to establish a successful aquaculture business and do proper skills development; it will require long term

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socio-economic investment into a specific community project. A solution can be private-public partnership to mentor, train and oversee long term sustainability once implementation and funding agents have exited the project.

- Based on discussions around environmental requirements and constraints for aquaculture development in KZN, it was suggested that Umgeni Water be included in the assessment although it will require water treatment, because the chlorine content in the water is too high and mostly kills fish. Luanita Snyman-van der Walt (CSIR) responded stating that all areas (available water bodies) will be screened for its aquaculture potential, areas will then be assessed in terms of its sensitivity (risk rated), most probably resulting in certain areas to be classified as “no-go areas”. This screening will be informed by specific siting criteria which will assist in developing the ADZs. Results from the sensitivity analysis will feed into DEA pre-assessment screening tool.

End of Meeting