

CONFEDERATION OF NAMIBIAN FISHING ASSOCIATIONS

P.O. Box 2513
Walvis Bay
Namibia
E-Mail: bobboh@etalefishing.com

Tel: 064 - 218732
Fax: 064 - 205472

11 October 2011

Sigi Horsthemke
Office Manager
Enviro Dynamics
PO Box 4039
Windhoek
Email: sigi@envirod.com

Dear Sigi

Re: Sandpiper Marine Phosphates EIA Scoping Phase

Our first concern is that the above marine phosphate mining is a first in the world, and with so many potential unknowns, we would request that the "precautionary principle" be followed. Given the potential scope of this mining project, we as an industry suggest that the Ministry of Fisheries and Marine Resources be allowed to conduct a baseline study of the habitat before a final decision to proceed is made. This would include a pilot EIA study, by mining a small area of similar habitat, where after the results can be compared with the non-mined area, and be made public. This was the method followed for deep sea mining of manganese nodules and sulphur by the International Seabed Authority. This should occur in order to avoid lasting negative impacts on Namibia's prolific fisheries resources.

We heard that Minemakers Ltd / Bonaparte were stopped in Australia from marine mining. We understand that this was not mining for phosphate, but assume that it was environmental concerns that stopped the operation from going ahead, and if this was the case, would appreciate knowing what the reasons were.

Our understanding from the public meetings was that the mining representatives of Namibian Marine Phosphates (Pty) Ltd were saying that most of the liberated hydrogen sulphide from mining would be sucked up into the dredger. Would this then be part of the low-oxygen fine sediment slurry that is released overboard? Are you able to measure how widespread or severe the impacts of this will be? We understand that approximately 100 thousand tonnes of this will be released back to the water as mine fines in the first year of production, rising to 500,000 tonnes at full production. We are concerned that these fines could also impact on surrounding phytoplankton which may de-oxygenate the water further.

The plumes are likely to increase the turbidity of the entire water column, and remobilise a lot of nutrients and potentially some nasty products. The risk of the combined effects appear significant, affecting primary and secondary productivity, the feeding habitat of commercial fish in the water column, and the refuge resting habitat of demersal fish species.

To our knowledge the mining area impacts on hake, monk and sole, kingklip, pilchard, and potentially also the horse mackerel fishery. Sulphur eruptions impact on marine aquaculture in Walvis Bay, and would mining activities have the potential to cause an environmental sulphur chain reaction, or impact the resource through current flow?

The Walvis Bay mooring point for the 200 metre dredge vessel is also in the area of pilchard breeding stocks. The mooring point is also directly in the area where juvenile horse mackerel is caught. Juvenile horse mackerel is processed into fishmeal. Will there be a no-fishing zone around the mooring point and what actions will be taken to prevent spilling of the slurry into the sea for example when the pipeline leaks or bursts? This is also potentially in the spawning ground of non-commercial species like kabeljou and steenbras.

When suction mining the sea bottom, will this stir up heavy metals which can then get into the seafood chain? Mandatory regulations must be complied with for fish products.

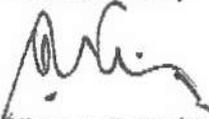
Will mining result in a proliferation of bacteria which may affect the quality of the fish? And would a proliferation of anaerobic bacteria affect seafood safety? As far as the proliferation of *C. Botulinum* is concerned, studies in the Great Lakes have shown seasonal outbursts of botulism impacting the fish population and bird eating fish, due to favourable anoxic conditions arising during certain times of the year. *C. Botulinum* is important in the decomposition of organic material and produces sulphur. In unfavourable conditions, it forms endospores which can germinate when conditions become favourable again. We are concerned that in the absence of the sulphur reducing bacteria and increased anoxia due to fines and tailings it may grow opportunistically, and not only affect fish quality, but may actually cause large scale fish or bird deaths. The numbers reported in Lake Erie were in the thousands for birds and fish. Although Lake Erie is a fresh water environment, it may be that this could happen in a marine environment as well.

We realise the actual mining area at any one time is small, but are concerned about its potential impact. How long will it take for the sea bottom to recover? As well as larger organisms on the sea bottom, there is a need to look at the micro-benthos, and its role in maintaining ecosystem integrity. There is a need to assess the footprint impact of sea bottom mining, including potential reverberations into the 200 metre depth restriction to protect fish breeding grounds, and also the footprint effects of release of water and fines from the vessel into the water column.

Our understanding from scientists is that the Benguela Current Ecosystem, while being a very productive coastal upwelling system, is also delicately balanced, different bacterial processes on the sea bottom maintaining oxygenated conditions, and removing methane gas. We also understand that bacterial activity also nourishes the water ecosystem with important nutrients. Suction dredge phosphate mining will disrupt this, as well as cause release of toxic chemicals such as hydrogen sulphide which exists in high concentrations, quickly remove oxygen from the surrounding water. This threatens the fishing industry as it impacts demersal and pelagic fish, as well as long-term recruitment of fish by destroying their hatching habitat. The dredging will also potentially result in large volumes of methane gas being released.

Thank you for giving us this opportunity to participate in this initial EIA scoping exercise. We look forward to continuing to communicate with you on this issue which is of real concern to the Namibian fishing industry.

Yours sincerely



Silvanus T. Kathindi
Chairman
Confederation of Namibian Fishing Associations

CC: **Mrs. Ulitala Hiveluah**
Permanent Secretary
Ministry of Fisheries and Marine Resources
uhiveluah@mfmr.gov.na
Fax: 061-224566

Dr Kalumbi Shangula
Permanent Secretary
Ministry of Environment and Tourism
lhimumuine@met.na
Fax: 061-229936

Mr Joseph Iita
Permanent Secretary
Ministry of Mines and Energy
Fax: 061-220 386

Dr Hashali Hamukuaya
Executive Secretary
Benguela Current Commission
hashali@benguelacc.org
Fax: 061-246803

The Press