

ENVIRONMENTAL IMPACT ASSESSMENT FOR MARINE AQUACULTURE (MARICULTURE) DEVELOPMENT IN SWAKOPMUND AND WALVIS BAY AND LÜDERITZ

SWAKOPMUND SECTORAL STAKEHOLDER'S CONSULTATIVE MEETING

SUMMARY OF MINUTES OF THE SWAKOPMUND SECTORAL MEETING

1. Minutes Of The Swakopmund Stakeholders' Consultation Meeting (Scoping Phase)

1.1.Date: August 8th, 2022

1.2.Place of the meeting: Ministry of Fisheries & Marine Resources Conference Room

2. Agenda Items:

- Introducing the EIA Team
- Introducing the Proponent - Ministry of Fisheries and Marine Resources
- Introducing the Technical Advisor - Benguela Current Convention
- Project Objective
- Purpose of the Meeting
- Discussion session
- Way forward

4. Meeting participants

See attendance Register

PROCEEDINGS

Welcome, Opening Remarks and Round of introductions

- KPM Team Leader, Mr. Festus Kapembe (EAP), the Chair and Presenter, welcomed all participants to the meeting and informed the general public regarding the environmental assessment being conducted for the coastal towns of Swakopmund, Lüderitz and Walvis Bay mariculture / aquaculture industry.
- He started by introducing the Benguela Current Commission, Ministry of Fisheries and Marine Resources Team members, followed by KPM Consulting team and asked the participants to introduce themselves and identify their respective organizations
- The participants were composed of the Swakopmund and Walvis Bay Municipalities, Farmers, Namport, Ministry of Fisheries, UNAM Students, Government Officials, Community leaders, and interested parties.

Background, Project Nature and Its Objectives

- The EAP took the participants through the background to the project:
- The Ministry of Fisheries and Marine Resources (MFMR), with support from the Secretariat of the Benguela Current Convention intends to develop marine aquaculture / Aquaculture Parks in Swakopmund, Walvis Bay and Lüderitz.
- KPM appointed to conduct the three Sectoral / Site specific Environmental Impact Assessments (EIAs) and to propose generic Environmental Management Plans (EMPs) for the proposed Marine Aquaculture Zones in the above-mentioned towns and associated islands.
- The objective of this study would be for MFMR to acquire (Sectoral) Environmental Clearance Certificates (ECCs) from the Ministry of Environment, Forestry and Tourism (MEFT), to enable marine aquaculture entrepreneurs to set up and operate

Why Sectoral EIAs (for Swakopmund, Walvis Bay and Lüderitz)?

The EAP highlighted that:

- instead of project-level-EIA, an EIA should take place in the context of regional and sectoral level planning.
- Once sectoral level development plans have the integrated sectoral environmental concerns addressed, the scope of project-level EIA will be quite narrow.
- Sectoral EIA will help to address specific environmental problems that may be encountered in planning and implementing aquaparks projects in Swakopmund, Walvis Bay and Lüderitz.

Project Level EIA (Operators):

- the EAP explained the project nature and its objectives and the positive and negative impact the project may impose on the community and the environment and the mitigation measures that will be taken to minimize the negative impact and maximize the positive impacts.

The team also indicated possible negative impacts of the project and the measures that will need to be taken to minimize those impacts as follows.

Basic Approach to Mariculture, Problems and Development Strategies

The EAP discussed the environmental conditions in the open marine and inland brackishwater areas and the type of structures that can be constructed in both areas for mariculture purposes in the towns of Swakopmund, Walvis Bay and Lüderitz.

- For the open marine environment cages are suitable but for cage culture, both cheap materials for constructing cages and cheap fish feed must be developed.
 - For the inland brackishwater areas earth ponds are recommended.
 - The tidal range for earth ponds is quite favorable and soil conditions in Swakopmund, Walvis Bay area is suitable.
 - In Namibia, there is a certain species which are popular for culturing in brackish water ponds, and these are recommended for culture in Benguela Current waters in the inland brackishwater areas.
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- Majority of the culture activities in Namibia concentrate on extensive practice without supplementary feed.

Regulatory Environment for Aquaculture In Namibia: Assessment of Government Interventions

Mr. J. Hamukwaya, Deputy Director - Aquaculture: Ministry of Fisheries and Marine Resources took the participants through the Requirement for aquaculture licensing in Namibia.

- Company registration - Regulation 2 (Annexure A)
- of Aquaculture (Licensing) Regulations: Aquaculture Act, 2002
- Business Plan -- Section 12 (3)(a),
- Land ownership or consent - Section 13 (1) (b) and/or (d), Approval - water use - Section 13 (1) (b) and (d),
- Public notice in local newspaper - Section 12 (4),
- EIA report - Section 12 (2),
- EMP - Section 12 (3)(a),
- ECC - Section 13 (1) (c),

Requirement-export/import of live aquatic organisms, Aqua. Act

- Risk Assessment for import
- Registration as an exporter/importer of live aquatic organisms
- Health Certificate from exporting country
- Requirement for importing country (Higher)

Meeting Proceedings

The EAP opened the floor to the audience soon after the presentation during which the following comments were discussed:

Participant 1: asked the species to be kept if the oysters and scallops will be kept in separate farm areas.

The project team confirmed that some of the operators will have separate farm areas (such as Southern Breeze) while others will conduct joint operations.

Participant 2: asked whether mussel farming could be considered as an alternative for the industry.

An explanation was provided by the project team why mussel farming is not a viable option. When mussels are contaminated, they take much longer than oysters or scallops to purge themselves of toxins. Strict toxin testing requirements are therefore in place to ensure that all mussels sold are consumable.

The tests required are very expensive with long delays before results are available. Therefore, much larger quantities of mussels are required to afford the tests. Swakopmund does not have the necessary deeper waters which are micro toxin free, to cultivate the required numbers.

Participant 3: wanted to know whether any studies were conducted related to the food chain dynamics of the area. Specifically in terms of volume and diversity and how these parameters are being impacted on by the mariculture industry.

The project team confirmed that the infrastructure used during operations are creating a habitat for especially identified species, which in turn are a source of food for various other species. It was confirmed that no specific studies have been conducted regarding the food chain in the area.

Participant 4: enquired how long it will take for the project to reach its maximum, and what exact areas have been identified.

The EAP pointed out that the Municipality has identified a piece of land near Mile Four Caravan Park. The Representative from Swakopmund Municipality advised that the Council is yet to finalize on the layout plans / site for the proposed activities.

The EAP took the participants through the initial Map, with the final Map to be furnished.

Participant 5: enquired on the factors affecting development of aquaculture and their use in forecasting production

The EAP highlighted that many factors have been suggested as influencing the development of aquaculture in a positive or negative way. He took through the participants through a system for examining five major factors, including 15 sub-factors, to identify those most closely related to the development of aquaculture. If successful, certain factors or sub-factors might be used as indicators of the probability that aquaculture production would increase in Namibia.

Factors and Sub-factors Selected for the EIA Study

1. Environment

The factor environment, and its three sub-factors: (1) physical, (2) institutional and (3) social, obviously are important since they concern the suitability of geographical areas for aquaculture developments.

The physical environment determines whether a selected species can be grown successfully in a certain area without providing a controlled habitat to meet its environmental requirements. This sub-factor includes temperature, rainfall (if any), insolation, water quality and quantity, and similar characteristics.

The EAP, with support of the Deputy Director - Aquaculture: Ministry of Fisheries and Marine Resources - highlighted that a second portion of the environmental factor is termed institutional. Under this heading are included governmental policy, planning, programmes such as training, extension services and financial assistance, and controls, any of which can have a positive or negative impact on the development of aquaculture.

2. Space

With regards space, the EAP / MFMR went on to state that another aspect of the social environment is the stage of social and political development of local communities. The availability of supplies, services, housing and amenities and the status of transportation and communication facilities, which are generally included in the term infrastructure, are also included under this heading. A second major factor is the availability of suitable space on land or water bodies for aquatic farming. Land or water space must be obtainable at an acceptable cost and, for private farming, must permit private control similar to that needed for agriculture. This factor and the sub-factors (1) land and (2) water include the problems of competition among user groups for attractive areas such as residential or recreational waterfront and established agricultural lands.

3. Technology

Technology and its sub-factors: (1) culture technology and (2) product technology include the state-of-the-art for growing selected species, preparing or preserving the resulting products and delivering them to the consumers in good condition.

This factor also includes the local availability of adequate information concerning culture and product technology. Information dissemination, training and extension service activities are usually needed to provide a sound technological basis for the development of aquaculture.

4. Production

With regards production, this factor which concerns the application of technology and its four sub-factors: (1) planning and management, (2) inputs, (3) operations and (4) costs, cover all the activities directly related to growing the selected species. The sub-factor planning, and management includes development of the

initial concept, species and site selection, capital formation, design and construction of the farm and business management of the operation. This sub-factor includes the availability of personnel with technical and business management skills or training needs in this area.

The second sub-factor, inputs include the availability of seed, feed, water, energy and various materials and supplies at acceptable costs. This also includes the logistics of providing the needed inputs for the farm.

The third sub-factor, operations, includes all the day-to-day activities needed to grow fish, molluscs, crustaceans or aquatic plants and to harvest the products and to prepare them for delivery to processors or distributors. Trained personnel are the most important requirement for a successful farm. This must include individuals with technical skills in aquaculture, foremen, in the case of large projects, and trained labourers.

The final sub-factor, costs, is considered separately to emphasize the importance of production costs in the development of aquaculture. Fish farms which incur high costs because of location, culture systems or operational inefficiency will be uneconomical.

5. Marketing

The factor marketing including its four sub-factors: (1) planning and management, (2) demand, (3) operations and (4) revenues cover processing, preservation, and packaging of aquacultural products, transportation to population centers and sale to distributors, wholesalers, retailers or consumers.

The first sub-category, planning and management, includes the selection of product form, processing or preservation methods and marketing strategy. It also covers the business management of the processing/marketing functions including scheduling the harvesting of fish farms to provide continuity of supply and minimizing seasonal overproduction. Individuals with skills in product technology, marketing, and business management are required for this activity.

It was noted that demand, income and price considerations are the major incentives for selecting certain species for production. Both are affected by the availability of the same or similar products from capture fisheries. As the cost of commercial fishing increases and wild stocks become fully utilized, aquaculture generally becomes more competitive.

The third sub-factor operations include all the day-to-day activities needed to process, preserve and package the fish, molluscs, crustaceans or marine plants produced in aquatic farms and to transport them to selected levels of the marketing chain. Personnel trained in product technology are needed to operate processing plants following procedures which will maintain the inherently high quality of farmed products. In the case of molluscs grown in contaminated water, operation of a depuration plant or a system of holding the live molluscs for a short period in clean water will be needed to protect consumers of raw or partially cooked products.

This sub-factor also may include transportation of the raw products from the farms to processing plants and delivery and sale of the finished product to various buyers using procedures which will prevent deterioration of the product. Individuals trained in quality control and marketing are required for this activity.

The final sub-factor revenue together with production costs determine the profitability of the fish farm. Logical marketing strategies and market development can increase revenues. High perceived revenues will encourage expansion of aquaculture.

During the discussion, it was noted that all of the sub-factors except physical environment represent conditions which could be modified to a greater or lesser degree by man's activities. Even the physical environment would technically prohibit aquaculture only in extremely unfavorable areas. However, even moderately unfavorable physical environments could make aquaculture uneconomical since expensive controlled habitats might be needed to provide the environmental conditions suitable for growing the selected species.

Participant 6: enquired if operators had been invited for the meeting (Swakopmund)

The EAP highlighted that as per the TORs and EMA Act and Its Regulations, the consultant made efforts to invite all existing and potential operators. Channels used include Facebook page, posters, direct emails and phone calls, as well as using contacts with the MFMR and Namport.

Way forward:

It was agreed that the Consultant need to directly engage operators in Swakopmund and the greater Coastal Region. The consultant was tasked to work on specialist studies that focus on types of fish to be farmed. Ministry of Fisheries and Marine Resources was tasked to assist with an updated database of strategic stakeholders.

The issue of aquaculture / mariculture governance and collaboration was highlighted as of great importance as it will help in creating a cooperative environment for responsible growth.

This pillar means collaborating across jurisdictions for strong coordination of regulatory roles to eliminate regulatory overlaps and minimize administrative burden on businesses.

As part of this work, we're:

- developing a new aquaculture framework for the Coastal Region
- looking into area-based management, which will:
- enhance collaboration between government and non-governmental actors including local operators
- improve information sharing, collective planning and ongoing aquaculture monitoring and management

- ensure that all partners consider Indigenous knowledge and unique environmental, social and economic conditions
- creating the general aquaculture regulations to:
 - make a single set of regulations
 - consolidate and amend current regulations
 - improve aquaculture management
 - provide greater clarity and enable innovation
 - Healthy fish and ecosystems

It was agreed that there was need to:

- developing frameworks for:
- reducing aquaculture risks posed to the environment
- risk management for cases where there is scientific uncertainty which will explain how the precautionary approach can be applied to sustainably manage aquaculture
- investing in science for sustainable fish and ecosystems management

The EAP announced that the next meeting was taking place in Walvis Bay on 23 August 2022, at 1800 hours as per the request by Walvis Bay Municipality officials.

The meeting was adjourned at 13:05 hours.