



OVERVIEW OF FISHERIES AND AQUACULTURE IN SOUTH AFRICA*

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Introduction

The **Marine Living Resources Act (MLRA)** (18 of 1998) sets out the broad objectives of fishery management and access rights for South Africa's 3,000 km coast line, as well as transformation and empowerment objectives in its 1,073,000 km² EEZ (excluding islands).

The Marine Living Resources Act (18 of 1998) states that the marine environment and all living resources within it, is a national heritage and should be developed sustainably for the benefit of all South Africans. Government priority lies in the development and diversification of existing fisheries and the establishment of new fisheries in order to fulfil the key objectives of:

- Job creation
- Human Resource Development
- Social Sector Service Delivery
- Rural Development Programmes
- Transformation



Map of South Africa

Overview of Fisheries

South African fisheries are managed according to two strategies:

- **Total Allowable Catch (TAC)** and
- **Total Allowable Effort (TAE)**.

This total amount is apportioned among the right-holders in the fishery, according to the allocation decisions of the Minister of Environmental Affairs and Tourism.

A key tenet of the MLRA is to provide for the exercise and control over marine living resources in a fair and equitable manner to the benefit of all the citizens of South Africa. An objective of the Department has been to broaden participation in those areas of the South African fishing industry where small-scale operators (e.g. individuals and SMEs) can also gain access to the resources.

The main commercial species which are TAC-controlled include the **deep-sea hake, inshore hake, long-line hake, west coast rock lobster and south coast rock lobster, pelagic and abalone** fisheries.

| Fishery | 2001 (t) | 2000 (t) | % of Total Value |
|---------------------------|----------|-----------|------------------|
| Demersal - Openline catch | 137 438 | 1 286 560 | 44.1 |
| Demersal - Inshore catch | 11 510 | 94 403 | 3.1 |
| Total Demersal (Total) | 152 599 | 1 377 952 | 47.2 |
| Pelagic (Pelagic) | 414 974 | 413 004 | 13.8 |
| Rock Lobster (CL) | 643 | 101 525 | 3.4 |
| Rock Lobster (WC) | 1 713 | 206 512 | 6.7 |
| Crustacean (Total) | 400 | 11 704 | 0.4 |
| Line Fish | 24 100 | 146 500 | 4.9 |
| Demersal - Longline | 4 762 | 11 717 | 0.4 |
| Abalone | 400 | 123 219 | 4.0 |
| Molluscanus, Soft-shell | 4 492 | 11 717 | 0.4 |
| Oysters | 1 100 | 22 376 | 0.7 |
| Manicardus | 4 100 | 18 100 | 0.6 |
| Seaweed | 4 100 | 18 100 | 0.6 |
| TOTAL | 674 117 | 3 101 130 | 100.0 |

Source: S. Swales 2003.

The TAC Process

Most of the fish stocks in South African waters are stable or on the rebound.

There are a number of steps involved in the process of determining a TAC for a fishery:

- The first step is to estimate the current size of the stock. This is accomplished by collecting fishery dependent data – such as catch returns, fishing effort and biological data;
- The second step involves applying a Model of Assessment to the abundance data sets. The most commonly used are the replacement yield models that assume that a stock can be exploited at a level where sufficient adult fish remain in the stock to replenish it with juveniles;
- The third step is the application of the Operational Management Procedure (OMP). The OMP is a set of rules which is agreed to by the Department and the fishing industry.

When taking a decision, the Minister is required to take into account recommendations supplied by the Department

Allocation Process

- Prerequisites
- Proper legal framework – amendments, etc
- Procedural issues – GG notice, application form, fees, TAE/TAC, etc
- Infrastructure and resources to support allocation process
- Allocation of Rights/Conditions
- Appeals
- Permits/Conditions
- Compliance
- Reviews

Summary

Although fisheries contribute marginally to the National GDP of South Africa, it is of considerable importance locally, especially in the Cape. The South African fisheries is going through a process of transformation. Processes regarding allocation and commercialization of subsistence fisheries are well under way. Increased emphasis is being placed on ecosystem approaches to fisheries management.

The Policy Formulation Process

The General Policy and the fishery specific policies are informed by South Africa's priorities and responsibilities.

- DEAT & MCM engage with stake-holders
- Green paper
- Consult further with stake-holders
- Cabinet approval
- White paper
- Drafting of Bill
- Consult with stake-holders and parliament
- Draft Act
- Consult with stake-holders and parliament
- Allocation policy
- Consult with stake holders and cabinet
- Detailed criteria drawn up by MCM



Cape Hake (*Merluccius Capensis*)



Hake fishing boat (c) 2001 Enviro-Fish Africa (Pty) Ltd

Marine Aquaculture

Commercial South African marine aquaculture production was initiated in the 1980's with the establishment of oyster, mussel and prawn farming. Abalone farming developed in the 1990's and is now the most valuable sub-sector. In 2004, the South African marine aquaculture industry produced **1,996 tons of products**, valued at **152.8 million Rand**.

In terms of volume of production **mussels** represent the largest sub-sector, and accounted for 48.8 % of production, followed by **abalone** (27.9%), **oysters** (13.6%), **prawns** (7.0%) and **Gracillaria** (2.6%). In terms of value, abalone represents the largest sub-sector, and accounted for 87.7% of production, followed by prawns (7.7%), mussels (3.3%), oysters (1%) and Gracillaria (0.1%).

During 2005, there were a total of 49 rights holders active in the industry, the majority of which are in the Western Cape.

Also, in 2005 a **policy and sector development process** was initiated, the policy objectives are to:

- Create an enabling environment that will increase the contribution of aquaculture to production.
- Broaden participation in the aquaculture sector.
- Develop regulatory and management mechanisms aimed at minimising potential adverse environmental impacts associated with emerging aquaculture practices.
- Increase the resource base of aquaculture from the few species being farmed currently to a more diverse suite of species.

The process of policy development is expected to be completed early 2007 and thereafter the **legislation development process** will commence.

Principal Partners

1. Management

- Provincial Departments in Coastal Provinces
- Ezemvelo KwaZulu-Natal Wildlife
- Sustainable Coastal Development (Extension Officer Services and Catch Monitoring)

2. Research

- Environmental Evaluation Unit at UCT, School of Government at UWC (Co-management)
- Walter Sisulu University of Science and Technology (Mussel rehabilitation)
- Oceanographic Research Institute, National Institute for Aquatic Biodiversity (research)
- University of the Western Cape;
- University of Stellenbosch;
- Nelson Mandela Metropolitan University;
- Rhodes University;
- Fort Hare University;
- University of Kwa-Zulu-Natal.

3. Compliance

- South African Police Service;
- South African National Defence Force;
- Ezemvelo KZN Wild Life;
- Eastern Cape Parks Board;
- Sanparks