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GOVERNMENT NOTICE

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM

No. 1459

10 October 2003

MARINE LIVING RESOURCES ACT, 1998 (ACT NO. 18 OF 1998)**DRAFT POLICY ON THE ALLOCATION OF EXPERIMENTAL PERMITS IN THE OCTOPUS FISHERY**

The Minister of Environmental Affairs and Tourism has released a draft policy on the allocation of experimental octopus fishing permits.

Members of the public are hereby invited to submit written comment on this draft policy. The draft policy is available at www.environment.gov.za. Hard copies are available at the Department of Environmental Affairs and Tourism: Branch Marine and Coastal Management, 7th Floor, Foretrust Building, Martin Hammerschlag Way, Foreshore Cape Town.

Members of the public must submit written comment by no later than 16h00 on 12 November 2003. Comments should be titled as follows:

Draft Octopus Policy: 2003
The Deputy Director-General: Marine and Coastal Management

Comments may be –

- Hand delivered to the offices of Marine and Coastal Management at the above address;
- Posted to Private Bag X2, Roggebaai, 8012;
- E-mailed to ashare@mcm.wcape.gov.za; or
- Faxed to (021) 425-7324.

Should you have any telephonic enquiries, please do not hesitate to contact the Department at (021) 402-3911, alternatively (021) 402-3035. Your enquiries may be directed at Mr Andre Share (Director: Resource Management).



DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM
BRANCH MARINE AND COASTAL MANAGEMENT

**DRAFT POLICY AND CRITERIA FOR THE EVALUATION
OF APPLICATIONS IN THE EXPERIMENTAL OCTOPUS
FISHERY**

10 October 2003

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1. Introduction

The common octopus *Octopus vulgaris*, which is intended to be the species of octopus for which experimental fishing permits are to be allocated, is an under exploited resource in South Africa. At present, in South Africa this species is only harvested in the intertidal during spring low tide for use as bait, whereas the same species is considered a delicacy in many countries including Japan, Portugal and Spain.

It is the intention of the Department of Environmental Affairs and Tourism: Branch Marine and Coastal Management to begin the process of determining the feasibility of developing a twenty third South African commercial fishery – a commercial octopus fishery that will sustain the harvesting of sufficiently large quantities of octopus using sustainable catching methods and to export harvested octopus to countries that consider this resource a delicacy for human consumption.

The Department therefore intends inviting prospective applicants to make application to it on the specimen application form attached so that a partnership of research into the viability of an octopus fishery and the possible development of a directed commercial fishery may begin between an anticipated 16 successful applicants and the Department.

IMPORTANT: YOU MUST READ THIS

It is important to note from the outset that this draft policy is intended to guide the evaluation of applications for permits to participate in the experimental octopus fishery.

The weighting, if any, to be attached to the criteria will be determined by the Department once it has received all properly lodged applications. Applicants will be informed of this weighting once permits have been awarded to the successful applicants.

2. Background to the *Octopus vulgaris* species

Octopuses belong to the class Cephalopoda and are closely related to squid and cuttlefish. These animals have been harvested by artisanal fisheries since classical times and currently form an important component of the total fish landings in Portugal, Spain, Japan, Mauritania and Mexico. Octopuses are ideal candidates for commercial exploitation as they are short-lived, fast growing and have firm textured meat with a high meat recovery of 70-85%.

Octopuses may be caught in a variety of ways, including diving, trawling, spearing, long-lining using hooks and long-lining using pots. The latter has proven to be the most efficient technique in catching octopus by small-scale / artisanal fisheries in other parts of the world and hence accounts for the highest landings of octopus worldwide by these directed fisheries. The successful permit applicants will only be entitled to harvest octopus by means of long lining using pots.

A total of 39 species of octopus have been identified in South African waters. Of these, two species are significantly exploited, namely the common octopus *Octopus vulgaris* and the giant octopus *Octopus magnificus*. *O. vulgaris* occurs along the entire coastline of South Africa and is found from the intertidal to depths of over 200 m. It is currently only harvested in the intertidal during spring low tides by artisanal fisheries. As noted above, this species, although it has a high commodity value as a food species, is mainly used as bait. In contrast, *O. magnificus* is a deepwater (100 – 300 m) species and is caught as a by-catch in bottom trawl nets, south coast rock lobster traps and hake long-lining fisheries operating along the south coast. This species is exported to foreign markets where it is also used as bait. Of the two species *O. vulgaris* is considered to be the most suitable for exploitation by small-scale fisheries, due to its accessibility in shallow water and higher market value.

3. The Purpose and Objective of the experimental Octopus fishery

First and foremost, it is the intention of the Department to develop a carefully planned and regulated experimental fishery that could possibly develop into a commercial fishery.

The purposes and objectives of allocating experimental permits in the octopus fishery comprise two primary and numerous secondary objectives.

The first primary objective is to assess the fishing technique using pots attached to long lines and to modify the methodology if necessary, thereby making it more suitable for conditions prevalent in South African waters. The second primary objective is to identify ways of conducting meaningful octopus stock assessments or ways in which to obtain abundance indicators of the stock so as to estimate a sustainable fishing effort for the resource.

The secondary objectives include economic and octopus population biology studies, which will be essential for effective management of a future commercial fishery if the experimental fishery is found to be viable.

4. Duration

It is the intention of the Department to grant permits in this experimental fishery annually for a period not exceeding five years. It is anticipated that within 5 years sufficient data will be collected by the Department from permit holders to determine the economic and environmental viability of developing a commercial octopus fishery in South Africa and to determine appropriate management strategies for such a fishery. It is important to note that although annually renewable for a period of five years, a failure by the permit holder to comply with one or more permit conditions could result in the refusal to grant a further permit.

5. Number of Permits to be allocated

The Department has identified eight potentially viable fishing grounds in which the experimental octopus fishery is to operate. Having regard to a number of factors, such as the high degree of risk posed by an experimental fishery, the capital investment required for a 5 year experiment, and the potential number of applicants, the Department intends allocating a maximum of 16 experimental permits for the octopus fishery.

6. The Landing Sites

The Department has identified certain fishing grounds as being potentially viable. The nearest landing sites to these grounds are as follows:

- ❑ Saldanha Bay
- ❑ Simonstown / Kalk Bay
- ❑ Gordons Bay
- ❑ Hermanus / Gansbaai
- ❑ Arniston / Struisbaai
- ❑ Mossel Bay
- ❑ East London
- ❑ Port Elizabeth

Priority will be given to those applicants domiciled or whose registered places of businesses are closest to these landing sites.

7. Harvesting the Octopus

It is proposed that at this stage the octopus should be harvested by means of pots using long lines. This method is currently considered to be efficient, effective and the by-catch will be negligible.

Pot fishing is a passive technique, which exploits the need for the octopus to seek shelter. Therefore no bait or active fishing is required. When the pots are retrieved by means of a hydraulic line-hauler, any octopus inside the pots will remain as their natural tendency is to cling to their immediate substrate when disturbed. Additional benefits of this fishing method are:

- ❑ No by-catch will be landed; and
- ❑ It preserves the quality of the octopus.

The permit-holders will only be entitled to harvest octopus by means of long lining using pots. Each experimental permit-holder will be restricted to 2 000 pots. Of these a minimum of 900 pots will be reserved solely for experimental fishing for the duration of the 5 years. The reserved pots should at

this stage include 2 pot-types. The options are 110 mm diameter PVC pot and 150 mm diameter PVC pot or tyre pot and 150mm PVC pot. The situation may arise that subsequent to the commencement of the experiment, one or both of these above pot-type options may be changed by the Department. A total of 300 pots (150 of each pot-type) will be deployed per depth range. The number of pots to be attached to a main line (and hence the number of main lines) will be left to the discretion of the permit holder. These pots are to be attached in an alternating sequence to the main line. Main line(s) will be deployed parallel to the coast between 15 - 20 m depth. Similarly, another set (containing 300 pots) will be deployed further offshore at 20 - 30 m depth and a third set deeper than 30 m. The pots will be spaced 7 m apart on the main line in an attempt to minimise territorial conflict and cannibalism between octopuses in adjacent pots and hence resulting in equal probability of catching octopus in adjacent pots compared to catching octopus in non-adjacent pots. All pots used in this stringent experimental design will be numbered to determine the spatial distribution of octopuses.

The fishing area will be determined from sea charts and by consulting with experimental permit-holders. Any lost, stolen or damaged gear will be immediately replaced by the experimental permit-holder. This structured experiment will be used to determine the most efficient pot-type by season. Also by fishing simultaneously at different depths will give an indication of the seasonal onshore-offshore movements of octopus. As an observer will accompany the experimental permit-holder when lifting experimental lines, all catch rates will be verified and all octopuses caught will be weighed and sexes determined.

Furthermore, when lines are lifted, the first 15 animals caught at each depth zone will be retained for biological analysis. Hence, accurate data on depth, substrate type, GPS, catch rates, sex ratios, population size structure, diet, size at maturation and spawning seasons will be obtained.

Experimental lines should be retrieved approximately every 7 days (weather permitting and excluding weekends and public holidays).

As far as the remaining 1 100 pots are concerned, the experimental permit-holder will be allowed to choose any pot-type design. If the permit-holder chooses to use more than one pot design for the

extra pots then for consistency of data, each main line should consist of the same pot-type (one pot-type per main line). No trap doors or baiting will be allowed. The experimental permit-holder may fish these pots in any manner it chooses, including changing pot spacing on a main line, soak times and depth of fishing, provided that fishers keep accurate records of the number of pots fished, the soak times, catches per pot type, depth fished, GPS position and substrate type. However, at no stage will the experimental permit-holder be allowed to deploy these pots within 1 mile of the experimental lines. At the harbour or slipway the entire catch will be weighed in the presence of a fishery control officer or observer and the fishery control officer or observer must be notified of any tagged animals. Although the lifting of additional pots will not be monitored on a regular basis spot checks will be conducted from time to time.

8. Economic Viability

For the purposes of determining whether a viable commercial octopus fishery may exist, permit holders will be required to complete those economic questionnaires as may be determined by the Department.

9. Empowerment

One of the objectives of allocating experimental fishing permits in this fishery is to empower those persons who have been historically disadvantaged under apartheid (and includes all black South Africans, white females and all persons with disabilities). A further component of empowerment will be to benefit those persons domiciled or whose registered place of business is closest to the identified landing sites.

The Department does not intend to endorse any particular form of empowerment. The empowerment must however result in –

- Substantive transfer of skill and know-how, both in the areas of harvesting the resource and managing a business; and

- Beneficial HDP ownership of the financial rewards from the sale of the resource. In other words, HDP's must beneficially own the resource harvested in terms of the permit granted. The most obvious ways by which this would occur are where HDP's beneficially own any equity or interest in a company or close corporation or are unambiguously defined as beneficiaries and trustees in terms of a properly registered South African trust.

10. Investment in the experimental Octopus fishery

Applicants will have to demonstrate their commitment to enter and share in the risks of this experimental fishery. Investments and involvement in vessels, gear, processing establishments and marketing of the resource internationally will have to be clearly demonstrated. However, having regard to the fact that an octopus fishery does not currently exist, the Department will also recognise as investments, research undertaken and invested in and which pertains to this fishery (both locally and internationally), the knowledge of international octopus markets, and links with international buyers and networks.

It is important to note that ownership of an appropriate vessel will not be essential. However, every applicant will have to demonstrate a clear right of access to a vessel suitable for the harvesting of the resource.

A suitable vessel for the harvesting of octopus will be a vessel having a minimum length of 7 (seven) metres and a maximum length of 24 (twenty four) metres. The vessel must furthermore be fitted with a line hauler, functioning Vessel Monitoring System (VMS), Global Positioning System (GPS) and an echo-sounder.

11. Conditions

As this is an experimental fishery, the Department will require all successful applicants to adhere strictly to numerous permit conditions. The purpose of these conditions will substantially be to ensure proper, effective and reliable data gathering and compliance.

Experimental octopus permit-holders will be entitled to sell all octopuses landed provided that all the necessary biological and fishery data has been obtained. Experimental permit-holders will not be restricted to sell their catch to any particular market. Initially, no size limits or closed seasons will apply. However, as more data becomes available it may be necessary to impose a total allowable catch or applied effort. At the conclusion of the fifth year, all experimental permits will automatically lapse. The experimental permit does not in any way guarantee the permit holder a commercial fishing right if a commercial octopus fishery is to be established.

Permit holders, including their crew, who fail to adhere to the permit conditions and to any provision of the Marine Living Resources Act, 1998, could have their permits revoked, cancelled or withdrawn under section 28 of the Marine Living Resources Act, 1998.

The following generic permit conditions may, at this stage, be applicable:

- Experimental permit-holders will be restricted to a maximum of 2 000 pots.
- Of the 2 000 pots, a minimum of 900 pots (which will include two pot-types) will be utilised for stringent experimental fishing.
- Additional pots will not be permitted within 1 mile of the controlled experimental lines.
- Experimental permit-holders will be restricted to fishing with only one boat at any given time.
- Fishing may be excluded in specified areas. These areas will be specified by the Department.
- No fishing will be allowed in Marine Protected Areas or in the whale sanctuary at Walker's Bay.
- No fishing will be allowed without a Vessel Monitoring System unless exempted in writing by the Chief Director: Resource Management. Such exemption may only apply for a very limited period and shall only be given in exceptional circumstances.
- All economic and scientific data must be submitted on request and within the time period stipulated by the Department.
- Whilst involved in octopus fishing operations, permit-holders will not be permitted to have any bait, hooks, nets or by-catch on the vessel from which octopus harvesting is taking place.

- No other fishing activity will be allowed when deploying/ retrieving pots.
- Experimental lines shall only be lifted when accompanied by an observer. Only in exceptional circumstances will permission be granted to lift the experimental lines in the absence of an observer.
- The local fishery control officer and/or observer must be notified prior to launching to deploy or retrieve pots.
- Experimental permit-holders must allow a fishery control officer or observer to board their vessel at any time of the fishing operation.
- Observers must be notified of any tagged octopuses caught. All relevant information must be supplied such as date, tag number, GPS position of capture, depth of capture and mass of octopus, and the tag must be returned to the Department for a reward.
- Experimental permit-holders will not be permitted to withdraw from the experiment within the first year of fishing, i.e. the time taken from the deployment of the first pots, unless, in the opinion of the Chief Director: Resource Management, exceptional circumstances have arisen. The experimental permit-holder will be required to submit a written application and receive approval from Department before withdrawing from the fishery.

12. Compliance and Monitoring

Observers will be employed to collect data and to monitor the fishery in the specified areas, with the exception of Simonstown/Kalk Bay where Departmental personnel will monitor the fishing operations. Both on-board and shore-based observers will be appointed. Fishery control officers and/or shore-based observers will weigh catches at harbours and slipways.

The effects of the experimental fishing operations on the environment and ecosystem will be monitored. The effects of this fishery on other existing fisheries will also be monitored. Should the operations of the experimental fishery cause any significant adverse effects, such as on the octopus stock, on the environment or ecosystem or on other fishing sectors, the Department reserves the right to terminate the fishery.

13. Management of the Fishery

The Department will deploy a project manager to co-ordinate and manage the implementation of the experimental octopus fishery. The Squid Working Group will be responsible for making scientific recommendations regarding the Octopus fishery. These recommendations will be submitted to the Department.

14. Application Fee and Security

Every applicant will be required to pay an application fee of R65 (sixty five rand).

In addition, every successful applicant will have to lodge security with the Department in the amount of R100 000 (one hundred thousand rand) prior to a permit being granted. Failure to lodge such security in the manner and time required by the Department will result in the permit not being issued and the permit will instead be allocated to the next best applicant.

15. Anticipated Timeframes

The Department anticipates the following timeframes leading up to an allocation of permits:

- Draft Policy issued for public comment: 10 October 2003
- Comment period closes: 12 November 2003
- Consider Comments: 13 November to 01 December 2003
- Gazette Invitation to apply for experimental permit: 03 December 2003
- Receipt applications: 16 January 2004
- Allocate experimental octopus permits: 16 February 2004

16. Criteria for the evaluation of applications

The following, read with the above policy statement, will be used in evaluating applications for experimental octopus permits.

Every applicant will have to demonstrate a right of access to a suitable vessel for the harvesting of octopus. This will be a vessel of minimum length of 7 metres and a maximum length of 24 metres. The vessel should furthermore be fitted with a line hauler, functioning Vessel Monitoring System (VMS), Global Positioning System (GPS) and an echo-sounder. Failure to demonstrate a right of access to a suitable vessel and the ability to procure at least 900 pots will result in an application being rejected.

It must be noted that no weighting or precedence is implied by the criteria stated below. The following criteria will be used to comparatively balance applicants.

- **Investment and involvement:** Applicants must demonstrate the nature and degree of their respective current investments and involvement in the octopus fishery. While it is recognised that this is an experimental fishery, the Department wants applicants to demonstrate some investment and involvement, such as demonstrating a clear right of access to an appropriate vessel for the harvesting of octopus, involvement or investment in the processing of octopus or the ability to market the octopus in international markets.
- **Access to sufficient finance or capital:** Permit holders will be required to invest in a large number of harvesting pots (in excess of 900), will have to demonstrate a right of access to an appropriate vessel and will have to assume the various other risks associated with being involved in an experimental fishery. Accordingly, applicants must clearly demonstrate that they have access to sufficient finance or capital. Applicants will be required to commence harvesting of the octopus within six months of being granted a permit. Failure to commence harvesting of octopus within the first six months pursuant to the granting of the permit, will result in the permit being revoked.

- **Proximity to the identified landing sites:** It is the Department's intention to grant permits to applicants who, *inter alia*, are domiciled or whose registered place of business is located closest to the identified landing sites.
- **Empowerment:** The aim of empowerment is to ensure that those persons who have been historically disadvantaged under apartheid gain beneficial access to the resource and the financial benefits associated with the harvesting of the resource. In this regard, the Department will examine applications to determine –
 - Whether HDP's will benefit from any transfers of skill and know-how, both in the areas of harvesting the resource and managing a business;
 - The degree of beneficial HDP ownership and management within each applicant.
- **Involvement in commercial fishing:** It is the Department's intention to affirm those applicants that are currently not holders of commercial fishing rights. However, commercial right holders are encouraged to establish valid and empowering joint ventures with HDP's that are not commercial fishing right holders;
- **Harvesting of octopus:** Applicants will be required to demonstrate that they have the capability and capacity to harvest the octopus as set out in the Departmental policy statement above. Applicants must demonstrate that they would have the capacity, finances and capabilities to deploy minimum of 900 pots and a maximum of 2000 pots.
- **Collection of data:** Applicants will be required to demonstrate their ability to collect and provide relevant data that will enable the Department to properly study the octopus resource. The Department will require the following data:
 - Economic data;
 - Scientific data; and
 - Environmental and ecosystems data; and
- **Lodging of security:** Successful applicants will be required to lodge security in the amount of R100 000 (one hundred thousand rand) with the Department prior to being issued with a permit. Failure to lodge such security with the Department will result in the permit being allocated to the next best applicant.