

# FIJI SEA CUCUMBER MANAGEMENT PLAN 2015

## A PLAN FOR THE MANAGEMENT, DEVELOPMENT AND SUSTAINABLE USE OF SEA CUCUMBER FISHERY RESOURCES OF THE REPUBLIC OF FIJI ISLANDS

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### Glossary of Acronyms

LMMA	Locally Managed Marine Areas
HACCP	hazard analysis critical control point
TAE	Total Allowable Exports
UBA	Underwater Breathing Apparatus
NGO	Non-Government Organisation

**APPROVAL OF THE  
FIJI SEA CUCUMBER FISHERY MANAGEMENT PLAN 2015**

This plan is a guide that will assist with formulating regulations for the management of the Fiji Sea cucumber fishery.

Having regard to scientific, economic, cultural, environmental and other relevant considerations, it is determined that the sea cucumber fishery:

- a. is important to the national interest;
- b. requires management measures for ensuring sustainable use of the sea cucumber fishery resources;

As Honourable Minister of Ministry of Fisheries and Forests I hereby approve the Fiji Sea Cucumber Management Plan 2015 to be implemented.

Dated this .....

.....  
Osea Naiqumu

Honourable Minister, Fiji Ministry of Fisheries and Forests

## **1. Scope and status**

The Sea Cucumber Management Plan is to provide policy guidance and direction on management of the sea cucumber fishery in Fiji. The sea cucumber management plan applies to all animals belonging to the Class Holothuria, commonly known as sea cucumbers and includes all activities associated with the aquaculture, ranching, stock enhancement, collecting, processing, storage, buying, selling, and exporting of sea cucumber products from Fiji. Upon written approval of the Minister this plan comes into operation and regulations shall be developed for the management of the sea cucumber fishery.

A brief overview of the sea cucumber fishery is included as Appendix 1.

## **2. Interpretation**

In this plan, unless stated otherwise, each word or group of words has the same meaning, as defined in the Fisheries Act cap 158, except where this differs as provided below.

“authorised officer” has the same meaning as in the Act;

“Beche-de-mer” means the processed boiled, smoked and dried sea cucumber product;

“Collecting” also means harvesting, capture or fishing;

“Councils” means the Council established under the Local Government Act Cap 125.

“Director” means the Director of Fisheries Department of Ministry of Fisheries and Forests;

“export” means to –

(a) send or take out of Fiji;

(b) attempt to send or take out of Fiji;

(c) receive on account or consignment for the purposes of paragraph (a) or (b); or

(d) carry or transport anything for the purposes of paragraph (a) or (b);

“Permanent Secretary” means the Permanent Secretary of Ministry of Fisheries and Forests;

“Sea Cucumber” means all animals belonging to the Class Holothuria.

“Sea cucumber based products” means sea cucumber based products for pharmaceutical, aphrodisiac, cosmetic or any other non-food or beche-de-mer product.

## **3. Purpose and objectives**

The purpose of the plan is to provide ecological sustainable management and to establish an effective and enforceable management structure for the Fiji sea cucumber fishery.

The overall objectives are to:

- a) commence a logical adaptive approach to the management and sustainable utilisation of sea cucumber resources,
- b) support and maintain a profitable and sustainable sea cucumber fishery ensuring the fishery benefits communities in Fiji,
- c) re-build and maintain sea cucumber stocks at economically and ecologically sustainable levels for current and future generations,
- d) protect diversity and resilience of the marine ecosystem against human and environment impacts,

- e) ensure adequate provisions of resources for the implementation, monitoring and enforcement of the fishery plan and
- f) strengthen partnering and ensure accountability to all stakeholders.

#### **4. Strategies for achieving the objectives**

The ecosystem and the precautionary approaches<sup>1</sup> to fisheries management will be applied to the sustainable development and management of the sea cucumber fishery. To achieve the objectives the following strategies shall apply:

- a) undertake consultation with key stakeholders regarding the status and management of the fishery,
- b) develop, implement and enforce legal framework and regulations for the fishery,
- c) promote and encourage participation in the sustainable management of the sea cucumber fishery at national government, provincial, industry, and community levels,
- d) establish a sea cucumber fishery advisory committee,
- e) establish clear and transparent licensing arrangements to control and monitor exports,;
- f) establish a mechanism for managing the fishery by quota at the species level,
- g) closure of specified areas within fishery waters to allow sea cucumber stocks to recover from pressures of fishing,
- h) apply restrictions on fishing techniques or methods,
- i) apply restrictions (size limits, restricted species etc.) on sea cucumber species,
- j) establish requirements for sea cucumber aquaculture and other processed sea cucumber products,
- k) establish an ongoing program for monitoring sources of production, export quantities, stock surveys and other information to support management of the sea cucumber fishery,
- l) establish effective monitoring and enforcement systems to ensure compliance with the sea cucumber plan, licenses, conditions of licenses, regulations and community management initiatives and
- m) provide support to communities for the management of resources and to improve the value of marine products.

#### **5. Consultative process**

The Director of Fisheries shall organize consultations with key stakeholders: Government Departments (e.g. Customs, Police, Solicitor General's etc.), provincial, customary users

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<sup>1</sup> FAO 2003 define Ecosystem Approach to Fisheries (EAF) as follows: An ecosystem approach to fisheries strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries. Ecosystem Based Fisheries Management (EBFM) is defined as 'managing fisheries in a manner that addresses multiple needs and desires of society, without jeopardizing options for future generations, to benefit from the full range of goods and services provided by marine ecosystems''

(*iTaukei*), sea cucumber fishers, processors, buyers, exporters and Non-Government Organizations (NGOs) with stake in the sustainable development and management of the sea cucumber fishery. Consultations shall be conducted at least once in each calendar year or as may be necessary. The scope of the consultations shall include matters relating to:

- a) the management and regulation of sea cucumber fishery including licensing and conditions of licenses,
- b) Provincial Administrations or Customary fisheries management initiatives,
- c) the development of fishing and processing activities including investment policies, financial arrangements, research, monitoring and projects to promote sustainable sea cucumber fishing, processing, marketing and management,
- d) socio-economic or environmental impacts of sea cucumber fishing and processing,
- e) enforcement of the fishery management regulations,
- f) awareness and extension programs and
- g) any proposed amendments or reviews.

## **6. Management measures**

The sea cucumber fishery has been in operation for several decades, with inadequate management intervention; as a consequence species abundance, size structures and diversity have suffered significant declines throughout the country over the past decade. As a matter of priority, and in the best interest of coastal communities and industry, there is urgency to improve the legal framework for sustainable management of the fishery. To achieve this, the following measures are proposed as policy and for developing enforceable, binding legal instruments.

### **6.1 Advisory committee**

A Sea Cucumber Fishery Advisory Committee (“Advisory Committee”) shall be established, whose functions shall be to advise the Permanent Secretary on policy matters relating to sea cucumber fishery conservation, management, development, research, trade and sustainable use. The committee shall be appointed by the Permanent Secretary and shall consist of the following members:

- a) a representative of the sea cucumber exporters (nominated by sea cucumber export licensees),
- b) one representative of non-government organisations with a stake in the fishery (nominated by relevant non-government organisations),
- c) a representative from the Ministry of Rural Development and National Disaster Management,
- d) a representative from the *iTaukei* Affairs Board,
- e) a representative from Ministry of Industry and Trade,
- f) Fisheries Department shall be the Secretariat to the Committee,
- g) the Director (or his nominee) shall chair meetings of the Committee.

The chair may invite representatives of Industry, Provincial Administration or relevant government agencies, statutory bodies, relevant regional or international organisations/institutions to specific meetings. The committee will meet on a biannual basis with special meetings to be called by the Secretariat when urgent matters arise. The committee may adopt procedures it deems necessary for the conduct of its meetings (e.g. meeting minutes, quorums and decision making).

The terms of reference and scope of meetings shall include matters relating to:

- discuss and address policy matters relating to Fiji sea cucumber fishery,
- review the status of sea cucumber fishery management and applied research to improve the management of the fishery,
- review, discuss sea cucumber export license application vetting process, license renewals and make recommendations to the Permanent Secretary,
- review process for determining permissible export species, quota allocations and make recommendations,
- review proposal for sea cucumber aquaculture and proposal to produce sea cucumber based products for export,
- oversee the review of the sea cucumber management plan and make recommendations for action.

*Rationale:*

*The management of fisheries faces many challenges in balancing development objectives and sustainability. A fisheries advisory committee comprising key stakeholders to ensure accountability and transparency in policy and decision making. It is a forum for discussing issues to ensure concerns by stakeholders in the fishery are expressed, examined and addressed in a transparent manner. Advisory committee is a forum for decision making which assists the Permanent Secretary.*

## **6.2 Approaches for provincial administrations and communities**

To improve the status of sea cucumber stocks and to ensure long term benefits for local communities, provincial administrations and communities are encouraged and advised to take precautionary measures when establishing local natural resource management plans within their respective area of local governance These measures could include but are not limited to the following:

- a. establish networks of permanent no fishing areas or long-term (>5 years) rotational no-fishing-areas as part of Local Marine Managed Areas (LMMAs). These no-fishing-areas should be clearly defined and recommended to the Director of Fisheries for declaration,
- b. establish local periodic short term open sea cucumber harvest seasons,
- c. establish systems of best practices regarding processing sea cucumber to improve product quality and minimize environmental damage,
- d. encourage local fishers to process sea cucumbers to a high quality and coordinate sales of processed sea cucumber product,

- e. consult regularly with communities and agencies such as Divisional Fisheries Offices, Non-Government Organizations, academic institutions and other relevant partners.

*Rationale:*

*The management of fisheries resources including sea cucumber requires the various levels of governments and communities working together to achieve common goals for the benefit to country and communities. Effective fisheries management requires a collaborative and coordinated approach by communities, NGOs, Fisheries Department working together with a range of stakeholders.*

*The approaches to sea cucumber management outlined above are a starting point for consideration by provinces and communities.*

### **6.3 Licensing and permits**

The current Inshore Fishing License system will continue to be used for the collecting / harvesting of sea cucumbers. No person shall export sea cucumber for commercial purpose without authorization by the Permanent Secretary, issued in the form of a license. License conditions (schedule 1) will be used to monitor, the purchase, packaging and export of sea cucumber product. License fees will apply.

A sea cucumber export license shall be issued for a three year term, which shall be subject to annual reviews and payment of annual license fee (schedule 2). This licence is not transferable. Licenses will not be issued unless the required fees are paid. The Permanent Secretary may endorse a maximum of seven Sea Cucumber Export Licenses.

Companies who have continuously operated sea cucumber export business in Fiji over the past seven years will be given consideration.

The Department of Fisheries shall request for applications for sea cucumber export licence. Invitations to apply for a licence shall be published in general public circulation including newspapers for a period of one month. The publication of the invitation to apply for a licence shall state the following:

- the type of licence;
- background information required by the Permanent Secretary;
- locations in Fiji where application forms can be obtained and where applications must be submitted; and
- application fee;
- final date of submission;

License applications must be lodged with the Permanent Secretary in the form prescribed in schedule 3.

The Department of Fisheries, Project Committee will review all applications according to its License Criteria and will make recommendations to the Advisory Committee then to the Permanent Secretary. When reviewing applications the following shall be taken into consideration:

- whether the applicant is a registered business or entity in Fiji;
- previous operational history of the applicant in the Fiji sea cucumber fishery;
- ownership and the management of the business or entity by Fiji citizens;
- whether the business or entity gives employment and provides training in sea cucumber processing or exports to Fiji citizens;
- whether the business or entity has hazard analysis critical control point (HACCP) accredited storage facilities, which are adequate and secure for storage and inspection of sea cucumber products;
- whether the business or entity has complied with the relevant laws of Fiji relating to fisheries, environment, taxation, labour and immigration.

Applications must be accompanied by all information and records requested by the Permanent Secretary and applicants will be informed in writing of the status of their application no later than 20 working days (4 weeks) after the date when the application was lodge with the Permanent Secretary.

**Sea cucumber export permit:**

Applicable to Sea cucumber export license holders. A sea cucumber export permit shall be issued for any and all consignments of sea cucumber products destined for export.

*Rationale:*

*Licensing is a means of controlling, monitoring and managing participants in the fishery.*

*Monitoring catches of fisherman, the source and sales of sea cucumber or exports are means or sources of data that can explain the changes occurring in a fishery. This requires that licensed fisherman, sea cucumber buyers and exporting companies submit data to Department of Fisheries (and/or Customs) that disclose what species, how much and which province/district/island they were harvested from, purchased or processed. Collecting trade information such as local prices paid to fishers and export value from commercial importer invoices is simplified if these are requirements or conditions of export license.*

*However licensing fishers and making it a condition for licensed fisher's to submit data (even providing the very basic data) can be problematic to administer in Fiji due to the geographical expanse of the country.*

*Focusing the licensing at the product exit points (i.e. exports) and limiting the number of exporters to a manageable number is simpler to monitor and to control the exports of beche-de-mer, than licensing fishers throughout the country to monitor catches.*

*Rigid, clear and transparent criteria to determine the allocation of export licenses (i.e. who gets a license) will be required. This measure requires a fair, transparent system with clear processes and procedures for reviewing applications and recommending who gets licenses.*

#### 6.4 Quotas

The Department of Fisheries in consultation with the advisory committee shall give consideration to establishing and implementing a system of quotas (Total Allowable Exports (TAE)) for each species within the fishery. TAE will be derived from historical export data or in-water resource assessments. When establishing a TAE quota system, the Departments of Fisheries and Customs in collaboration with Provincial administrations and licensed exporters will devise a system for administering TAE, sub-dividing, allocating and monitoring the TAE amongst licensed sea cucumber export companies. The TAE will be determined for processed sea cucumbers (beche-de-mer), at the species level to allow for effective monitoring of exports.

*Rationale:*

*Many sea cucumber fisheries have gone through periods of exceptional production followed by periods of low production and income (referred to as: boom-bust cycles). As a consequence some countries have had to introduce moratoria on the harvesting or exports of sea cucumber.*

*An export quota at the species level is a means of controlling the export volumes of certain species. This quota can be adjusted as stocks replenish or if more information about the status of stocks becomes available. Because beche-de-mer value increases with size (i.e. length/weight), quotas can be an incentive to avoid the export, purchasing and harvesting of smaller less valuable specimens.*

*Currently it will be difficult to initiate a quota system due to inadequate in-water survey and export data coverage. Fisheries Department will improve its data collection program over the next two years with the aim of operationalizing a quota system.*

#### 6.5 Restrictions on fishing gear

The collection of sea cucumber using techniques that may harm the environment is prohibited (e.g. the use of crowbars). Fishing or harvesting sea cucumbers shall be restricted to hand picking or collecting by wading (reef walking) or free diving.

All other methods of harvesting sea cucumber including underwater breathing apparatus (hookah, SCUBA) or the use of robotic equipment shall be prohibited.

*Rationale:*

*Sea cucumbers inhabit shallow environments, they are very slow moving and mature specimens are relatively easy to find. Deeper areas in-accessible to wading or routine breath-hold diving hold essential reservoirs of adult breeding stocks of some key sea cucumber species. Restricting the use of efficient gear helps reduce fishing pressure and safeguards specimens that are in deeper areas. Examples of efficient gear are underwater breathing apparatus, hookah, trawl nets, weighted bombs, spears etc.*

*As sea cucumber become heavily fished they are harder to find in shallow environments, and fishers will need to fish in more distant areas or at depths and for longer periods. Under these circumstances underwater breathing apparatus (UBA) or surface supplied air (hookah) have been used to enhance fisher's efficiency. In Fiji and throughout the region there has been sea cucumber UBA dive related paralysis or deaths of sea cucumber fishermen due to diving for*

*excessive periods of time and at excessive depths.*

### **6.6 Restriction on species**

The possession, sale or export of dried sea cucumber smaller than the processed dry lengths provided in schedule 4 shall be prohibited.

*Rationale:*

*Minimum harvest or export size limits are imposed to protect young - non reproductive mature sea cucumbers to grow, reach maturity and spawn for more than one season before being susceptible to capture. Minimum size limits must be set at sizes above the size when sea cucumbers are fully mature. Larger specimens produce a greater number and larger, more viable eggs than recently mature sea cucumbers. The size and age when sea cucumbers reach maturity differ amongst species. For example sandfish (*H. scabra*; *dairo*) mature at 16 cm wet-length (or 6.2 cm dried length) and white teatfish (*H. fuscogilva*; *sucuwalu*) mature at 35 cm wet-length (or 15 cm dried length). The current legislation provides for a minimum size limit of 7.6 cm (3 inches) for all species. This is inadequate for a multi species sea cucumber fishery where different species reach reproductive maturity at different sizes.*

*To minimise confusion amongst fishers/processors and exporters and to simplify beche-de-mer inspection, a few minimum sizes limits (e.g. 10, 15, 20 cm) should be selected and species which have similar size at maturity or similar biological characteristics can be grouped into these size limits.*

*Many sea cucumber species change shape (length/width) when handled; they also shrink considerably when processed. This elastic feature of sea cucumbers makes enforcing size limits at the fisher and processing levels challenging. Applying and enforcing dry minimum sizes however is achievable if consignments are inspected and certified prior to the consignment exported overseas. To assist fishers and processors; the conversion from wet to dry minimum sizes are provided in schedule 4. These wet/fresh sizes are difficult to enforce however they are helpful as a guide for fishers and processors.*

The export of wild caught sandfish (*H. scabra*, *dairo*) and chalk fish (*B. marmorata*, *mudra*) shall be prohibited.

*Rationale:*

*Species of traditional food importance (*dairo* and *mudra*) to Fiji communities should be prohibited from beche-de-mer exports. This is to safe-guard food resources for local communities*

The Fisheries Department in consultation with the advisory committee shall determine the species and shall provide a list of species permitted for export. This list of permissible export species shall be reviewed every two years. This permissible export species list will form part of special conditions of licenses.

*Rationale:*

*Prohibiting the exports of species whose populations are fished to critically low levels reduces fishing pressure so that these populations can recover. Placing the onus on the export companies not to export certain sea cucumber species is relatively easier to enforce than inspecting the catch of the vast number of fishers throughout the country. Providing an option to develop and amend a list of permissible export species, allows Fisheries Department in collaboration with industry to add species that previously were prohibited to the list of permissible export species when stocks recover; or, to remove species from the list of permissible export species when their stocks status are uncertain.*

*Fishers/processors/exporters and inspectors would need to be able to identify each species in its live or processed forms. Sea cucumber identification sheets illustrating the permissible species should be developed and distributed each fishing season.*

#### **6.7 Restrictions and requirements for beche-de-mer exports and local sale**

Only fully dried sea cucumber (beche-de-mer) can be exported. Partly processed (e.g. gutted, frozen etc.) or pieces of beche-de-mer (e.g. strips, broken sea cucumber etc.) shall be prohibited from export for the beche-de-mer trade. Processed sea cucumbers can only be exported from Lautoka (Lautoka Fisheries Wharf), Suva (Kings Wharf or Nausori Airport) or Nadi (Nadi International Airport).

*Rationale:*

*Sea cucumber reduce in size as it passes through the various processing stages until the final processed beche-de-mer. Partly processed sea cucumber will be larger than the minimum size limits for fully processed export product. Further processing whole beche-de-mer into cut strips can be used to export undersize product or species that are not permitted for export. The measure also acts as a disincentive to break-up and pack for exports undersized beche-de-mer.*

*Limiting sea cucumber product export exit points (ports) simplifies inspection and enables inspection officers to ensure compliance with minimum size limits and permissible export species.*

Licensed exporters shall submit a report to the Fisheries and Customs Departments, listing all sea cucumber products they intend to export. The report shall be in the form of a “Sea Cucumber Export Declaration Invoice” (schedule 5) detailing the species, quantity of product, export destination, local purchase values, and commercial import invoice. After inspection of the export consignment by authorised officers and upon the satisfaction of the Director of Fisheries with the export declaration invoice and the inspection, the Director shall issue a Sea Cucumber Export Permit.

As a condition of sea cucumber export license, sea cucumber product for export shall be packed separately by species and the package clearly labelled with the species code name, grade, quantity (number of pieces & weight) of the product and the licence number of the export licensee. They should also be packed so as to allow for easy inspection.

*Rationale:*

*Data is important to understand the performance and for the management of the fishery. To gather the data it must be a condition that licensees shall submit an export declaration invoice to the Fisheries and Customs Departments for all consignments of sea cucumber they intend to export. Prior to issuing a sea cucumber export permit, consignments must be inspected to check that the exporter complies with minimum size limits and the list of permissible export species. To simplify inspection, the license condition should specify that beche-de-mer shall to be packed separately by species in clearly labelled containers or bags.*

*This measure will allow the regular monitoring of export company's species quotas to avoid gross species export quota overruns. The measure requires strict adherence to submitting Export Declaration Invoices and inspection of beche-de-mer export cargos with heavy penalties for non-compliance.*

*This product exit point will require rigid inspection and security. Exporters may pack in the back of a shipping container undersize product or products that are not on the permissible species list, which may be difficult for inspection officers to get too. In addition shipping containers that are not sealed after an inspection may be opened and more products that have not been reported and inspected may be packed into the container. As a licence condition; sea cucumber export containers should not be packed unless an authorised/inspection officer is on site to monitor the packing. Containers should be sealed by the authorised officer after each inspection.*

Consignments/packages of sea cucumbers bound overseas for personal use requires a permit issued by Department of Fisheries. Consignments of sea cucumber bound overseas for research/exhibitions shall be limited to 2kg (for all sea cucumber species combined) per person. Each consignment for research/exhibitions requires a permit issued by Department of Fisheries.

*Rationale:*

*This measure is to control exports of significant quantities of beche-de-mer disguised as product for personal consumption or research. For effective compliance, collaboration with port inspectors (Customs) is required.*

### **6.8 Requirements for sea cucumber aquaculture or the production of sea cucumber based products**

Person/s or company/ies intending to produce sea cucumber via hatchery technology or to be involved in sea cucumber reproduction and grow-out or ranching with the aim of supplying sea cucumber product for export shall first obtain written permission from the Permanent Secretary.

Person/s or company/ies intending to process sea cucumber products "other-than-beche-de-mer" [for example, pharmaceutical, aphrodisiac, cosmetic or any other non-food or beche-de-mer production] shall first obtain written permission from the Permanent Secretary and shall be subject to similar export declaration requirements as for sea cucumber export licenses.

Potential investors, companies or persons are required to submit to the Permanent Secretary a proposal outlining:

- the proposed operations and the projects objectives;

- goals to be achieved and timeframe;
- the types of activities the operation shall undertake and clear steps for proposed activities;
- source and quantity of brood stock species;
- site of proposed operation;
- monthly or annual production;
- an evaluation of environmental impacts;
- procedures the operation shall undertake to avoid detrimental environmental impacts or rehabilitation plans;
- business plan;
- letters of consent and approval by relevant customary resource owners (*vanua*) and Provincial Offices in respect of the proposed operation and
- any other information as may be required by the Permanent Secretary.

Proposals shall be reviewed by the Fisheries Department Project Committee and a recommendation put before Advisory committee and the to the Permanent Secretary who may consider and endorse issuing a license to operate, including terms and conditions such as operational area/s, permissible species, quota's and prescribed fees for such operation.

*Rationale:*

*Countries around the region have received proposal with the intention to breed sea cucumber via hatchery technology and release juvenile sea cucumbers into natural or altered marine environments for further grow-out to marketable size. Some of these proposals have claimed that the venture would need to harvest wild stocks of sea cucumbers to cover administrative and operational cost and to survive economically while hatchery released juveniles are growing. These measures are to allow for the careful review of proposals from potential investors in the culture of sea cucumbers or the processing of sea cucumbers for non beche-de-mer products. Scrutinising such proposals allows decision-makers to make informed decisions when considering genuine investors and at the same time, to avoid scams or fly-by-night operations in Fiji.*

**6.9 Data collection**

All licensed sea cucumber buyers, sea cucumber exporters and registered restaurant owners serving sea cucumber on their menu must complete and furnish monthly log sheets, detailing the quantity (total numbers and weight) of sea cucumber by species purchased or received from any District on a monthly basis. The Department of Fisheries will provide log sheets (schedule 6) to licensees.

Size (length and/or weight) information at the species level will be collected during inspections of export consignments. Quarterly summaries of the information shall be provided to the Director for dissemination to the Advisory Committee and stakeholders.

*Rationale:*

*The need for good reliable information is core to better understanding of the fishery and helps to refine management. Information on the numbers and sizes of each species and origin (province, district) the species was obtained will assist managers in understanding trends such as catches or size distributions at the local levels to determine if there is a need for further management intervention. Frequent data analysis and dissemination updates stakeholders and helps with better understanding of the fishery.*

## **7 General**

### **7.1 Monitoring and enforcement**

Fisheries Department will collaborate with Councils and Local Rural Authorities to develop a registrar and implementing a monitoring program to determine quantities of sea cucumber products sold through local markets and restaurants

The Department of Fisheries will monitor monthly reports from licensees and provide written summaries to the Director, Provincial Offices and stakeholders on a quarterly basis. Authorised officers will frequently monitor the premises of licensed exporters and will inspect log forms and beche-de-mer export cargo. Upon inspection, if more than 10% of a sample of beche-de-mer inspected is unlawfully packed, the entire consignment will be impounded for thorough inspection and investigation.

The Department of Fisheries and relevant NGOs will support Provincial administrations and communities with sea cucumber resource management initiatives and enforcement.

#### *Rationale:*

*Compliance with management rules (regulations) need to be backed up by effective monitoring and enforcement. Sea cucumbers are a commercial commodity in demand by foreign markets. Some species of sea cucumbers fetch high prices. The efforts by communities to manage resources through marine managed areas are sometimes disregarded by some fishers due to the drive for income generation. Support will be required for more effective resource management at the Provincial and community levels.*

*Many of the measures proposed in this plan focuses on product exit points this is to try and keep enforcement cost low. Effective fishery management and compliance will need to be strengthened through legal instruments and effective enforcement need to be resourced either by financial support from Government or through fisheries management cost recovery approaches and monitoring and enforcement capacity enhancement.*

### **7.2 Precautionary measures**

Where the Department of Fisheries have evidence to believe that wild caught sea cucumber stocks or species in the fishery waters of Fiji or any Provincial areas is under stress or threat that are likely to become endangered, the Department after consultation with the Advisory Committee, Provincial Administrations and stakeholders may take precautionary management

measures to preserve wild stocks. These measures may include, but are not limited to the following:

- declaring the closure of whole or any part of Fiji fishery waters from harvesting, processing or exporting of sea cucumber;
- prohibiting the capture, processing and exports of certain species of sea cucumbers;
- reducing sea cucumber species export quota;
- reducing the number of sea cucumber export licenses;
- banning the exports of sea cucumber/beche-de-mer products;
- imposing other restrictions on activities that may have adverse impacts on sea cucumber stocks.

*Rationale:*

*This measure is used as last resort if, for various reasons the harvest, processing and exports of wild caught sea cucumber is not sustainable.*

### **7.3 Research**

The Department of Fisheries in collaboration with licensed operators, Provincial Administrations, institutes or organisations, with an stake in the sustainable development and management of sea cucumber fisheries and the long term conservation of stocks; will develop and implement programs of applicable research on sea cucumber resources in Fiji. Research may include improved beche-de-mer processing, impact of fishing on non-target species and the marine environment, life history studies and fishery data analysis including catch composition, in-situ assessment, sea cucumber species diversity by area, size structure or stock densities for any given area or period of time and as time series.

*Rationale:*

*Collaboration takes advantage of resources: - financial and human capacity or expertise the various partners may have. The goal should be to conduct research or training to improve the sustainable management of the fishery for the benefit of Fiji.*

### **7.4 Review and amendments**

The Director in consultation with the advisory committee shall, on an annual basis conduct an analysis of the management measures set out in this plan, to determine whether the plan should be reviewed. The Sea Cucumber Management Plan may be reviewed upon the written approval of the Permanent Secretary.

When reviewing the sea cucumber fishery plan the Director shall give particular regard to;

- the objectives of the plan;
- the effectiveness of the conservation and management measures;
- the status of the stocks, including changes in yield, species and size composition, distribution and stock density;

- the effectiveness of the data collection, monitoring programs, compliance and enforcement;
- benefits to communities;
- appropriateness of quotas;
- level and effectiveness of enforcement;
- the status and economic viability of the fishery and
- the appropriateness of fees and charges.

After conducting the review, the advisory committee shall make recommendations to the Permanent Secretary as to the amendment, revocation or continuation of the Sea Cucumber Fishery Management Plan. The Secretariat of the advisory committee shall consult with key stakeholders prior to making any recommendation to the Permanent Secretary as to the results of the review.

The Director may revise and amend schedules to this plan as necessary. Any proposed amendments to the plan shall be submitted to advisory committee and the Permanent Secretary for consideration. Any approved amendments or revisions to this plan will be made public.

*Rationale:*

*Fishery management is an evolving process, learning and adapting to the changing dynamics within the fishery and the concerns and needs of communities, fishers and industry. Annual review process will allow adaptation to the changing characteristics of the fishery.*

## Appendix 1: Fiji sea cucumber fishery overview (May 2015)

### Sea Cucumber Resources

There are 25 species of sea cucumber that are of commercial importance in Fiji, two of these species, sandfish (*Holothuria scabra*, dairo) and chalkfish (*Bohadschia marmorata*, mudra) are also important traditional food items. The common, scientific and local names for sea cucumbers are provided in table 1. Most of the sea cucumber species in Fiji feed on benthic or sediment detritus matter in the first few millimetres of lagoon/reef floor, this helps in reducing nutrient loads and controlling microalgae growth. All sea cucumbers in Fiji move slowly and the majority of species are found in depths less than 20 meters. Most species reproduce sexually while a few species, such as lollyfish and greenfish are capable of asexual reproduction. Few studies have investigated the effect of egg/sperm fertilisation as a function of sea cucumber densities. Sheppard et al 2004<sup>2</sup> reports that tigerfish (*Vula ni cakau*, *Vulawadrawadra*) fertilisation rates are high (>75%) when breeding pairs are within one meter apart, this fertilisation rate diminishes to less than 5% when breeding pairs are between 20 to 40 meters apart. These biological characteristics render sea cucumbers vulnerable to fishing pressures and as a consequence a reduction in densities therefore reducing reproduction success.

**Table 1:** Sea cucumber species in Fiji. “\*” the main target species for beche-de-mer, “#” species important as traditional food items. “+” FLM, and SDR are used in absence of FAO short code for loli’s mother and spiky deepwater redfish. Value group: VH = very high, H = high, M = medium, L = low value.

Short Code	Common name	Species	Local name	Value Group
HLX	Amberfish*	<i>Thelenota anax</i>	Basi	M
JDG	Black teatfish*	<i>Holothuria whitmaei</i>	Loloa	H
JPW	Brown curryfish*	<i>Stichopus vastus</i>	Laulevu	-
BDV	Brown sandfish*	<i>Bohadschia vitiensis</i>	Vula	M
KUH	Chalkfish*#	<i>Bohadschia marmorata</i>	Mudra	M
JNG	Curryfish*	<i>Stichopus herrmanni</i>	Laulevu, Kari, Lokoloko ni qio	M
YGP	Deepwater blackfish*	<i>Actinopyga palauensis</i>	Dri ni cakau	-
KUE	Deepwater redfish*	<i>Actinopyga echinites</i>	Tarasea	H
KUN	Dragonfish/peanutfish*	<i>Stichopus horrens</i>	Katapila	M
HOZ	Elephant trunkfish*	<i>Holothuria fuscopunctata</i>	Tinanidairo, Dairo ni toba	L
EHV	Flowerfish*	<i>Pearsonothuria graeffei</i>	Senikau	M
JCO	Golden sandfish*	<i>Holothuria lessoni</i>	Dairo kula	VH
JCC	Greenfish*	<i>Stichopus chloronotus</i>	Greenfish , Barasi	H
KUQ	Hairy blackfish*	<i>Actinopyga miliaris</i>	Dri, Driloa	M
FLM+	Loli’s mother*	<i>Holothuria coronopertusa</i>	Tina niloli	L
HFA	Lollyfish*	<i>Holothuria atra</i>	Loliloli (Lolini cakau)	L
HFE	Pinkfish*	<i>Holothuria edulis</i>	Lolipiqi	M
TFQ	Prickly redfish*	<i>Thelenota ananas</i>	Sucudrau	H
HFC	Sandfish*#	<i>Holothuria scabra</i>	Dairo	VH

Comment [IB1]: Watisoni to provide 3 new species names

<sup>2</sup>Sheppard SA, Martinez P, Toral-Granda MV, Edgar GJ (2004). The Galapagos sea cucumber fishery; management improves as stocks decline. Environmental Conservation 31:102-110.

<b>HFI</b>	Slender sea cucumber	<i>Holothuria impatiens</i>		-
<b>HHW</b>	Snakefish*	<i>Holothuria coluber</i>	Yarabale, Ika lo	M
<b>SDR+</b>	Spiky deepwater redfish*	<i>Actinopygasp. aff. flammea</i>	Tarasea	H
<b>YVV</b>	Stonefish*	<i>Actinopyga lecanora</i>	Dritabua, Drivatu	M
<b>KUY</b>	Surf redfish*	<i>Actinopyga mauritiana</i>	Tarasea	H
<b>KUW</b>	Tigerfish*	<i>Bohadschia argus</i>	Vula ni cakau, Vulawadrawadra	M
<b>HFQ</b>	White snakefish	<i>Holothuria leucospilota</i>		-
<b>HFF</b>	White teatfish*	<i>Holothuria fuscogilva</i>	Sucuwalu	VH

## **Fishery**

Sea cucumbers are harvested by a variety of methods ranging from gleaning, snorkelling, with the aid of canoes/boats and the use of fishing equipment such as snorkel gear, sea cucumber bombs and spears. Night fishing using torches and the use of underwater breathing apparatus (UBA) are increasingly practiced by fishers to target nocturnal or sea cucumber species in deeper areas.

Processing of sea cucumber into beche-de-mer requires a series of stages. In Fiji processing varies depending on species, generally the steps require removing the internal viscera (gutting), rinsing or cleaning, salting, boiling, smoke drying, re-boiling and final drying either by sun, kerosene or electric drying. Some remote communities process and sell beche-de-mer to middle men while many fishers living close to town centres would sell either fresh (wet/whole) or partly processed (gutted/salted) to sea cucumber buyers.

Export records show moderate increase in production over the mid 1970's to early 1980's, by 1988 production increased to 717 tonnes then declined to 149 tonnes by 1993. This was followed by a second boom in production in 1996-1997 (figure 1). The rapid increase in exports around the mid-80s was due to increase demand from Asian markets and high beche-de-mer prices. Hairy blackfish was a significant component of beche-de-mer exports during the 1980s comprising 90% of catch and exports in 1988<sup>(3)</sup>. Hairy blackfish, white teatfish, black teatfish and sandfish, dominated exports, followed by lollyfish, stonefish, and deepwater redfish prior to 1988<sup>(4)</sup>. Small quantities of sea cucumber were imported to Fiji from neighbouring Pacific Island countries (e.g., Tuvalu, Kiribati, Wallis and Futuna) and re-exported from Fiji.

Total exports have hovered around 250 tonnes for the period 2003– 2014 (past 12 years). In 2003, 30% of exports comprised of very high<sup>5</sup> and high value<sup>6</sup> sea cucumber species and by

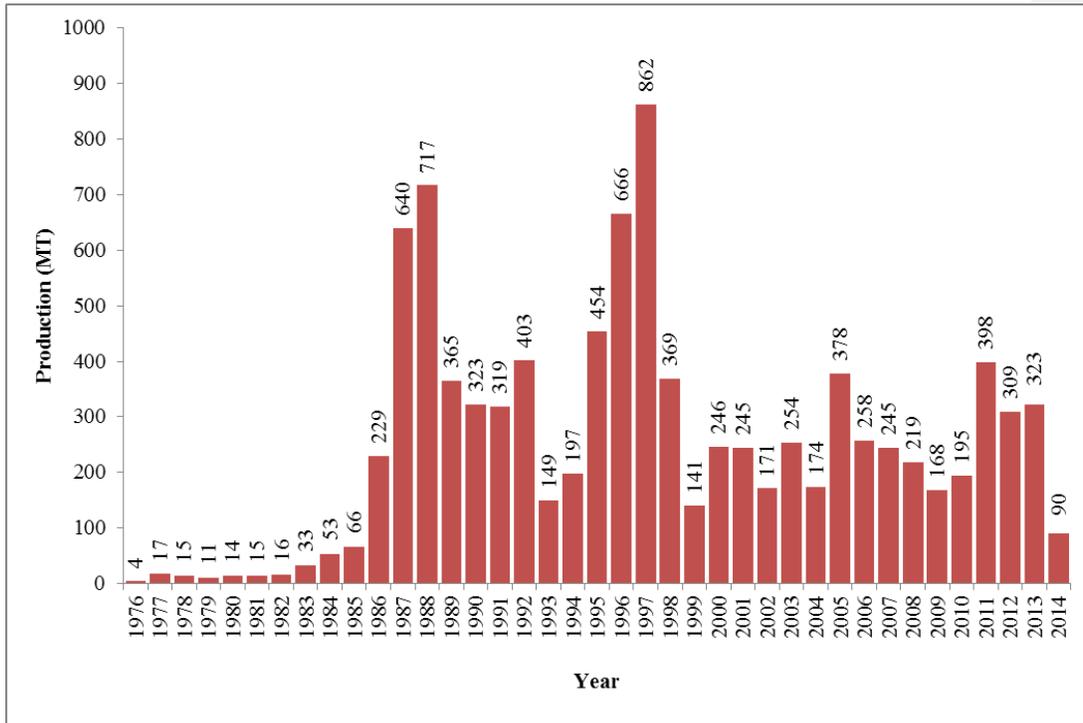
<sup>3</sup>Preston, G., Lokani, P., Vakamoce, V. and Viala, F. (1988) Beche-de-mer Exploitation in Fiji. Report to Chief Fisheries Officer, 9 December, Secretariat of the Pacific Community, New Caledonia, 17 pp.

<sup>4</sup>Kinch, J., Purcell, S., Uthicke, S. and Friedman, K. 2008. Population status, fisheries and trade of sea cucumbers in the Western Central Pacific. pp7–55. In Toral-Granda, V., Lovatelli, A. and Vasconcellos, M. (eds). Sea cucumbers. A global review of fisheries and trade. Fisheries and Aquaculture Technical Paper No. 516. Rome: FAO.

<sup>5</sup>Very high value: White teatfish and Sandfish

<sup>6</sup>High value: Black teatfish, Greenfish, Prickly redfish, Deepwater redfish and Surf redfish

2012, 15% of the catch was made up of very high and high value sea cucumbers species. This signals a decline in abundance of very high and high value species in waters of Fiji.



**Figure 1.** Annual exports (mt) of beche-de-mer from Fiji: (Source, Fiji Department of Fisheries, Preston 1993, Qalovaki 2006, Carleton et al 2013).

### Management

The beche-de-mer exploitation guidelines were approved by Government in 1984. Under these guidelines the harvesting and processing of sea cucumber was restricted to Fiji nationals and the use of SCUBA gear for collection of beche-de-mer was outlawed. However the prohibition on the use of SCUBA may be exempted upon written request by a person and the approval for exemption granted by the Permanent Secretary (<sup>7</sup>). By 1988 a ban on the export of sandfish (*H. scabra*, dairo) and a minimum export size limit of no less than 7.6cm (3 inches) on all sea cucumber products were introduced. The protection of sandfish reflects the importance of this species as local food (<sup>8</sup>). However as early as two years after the new size regulation came into

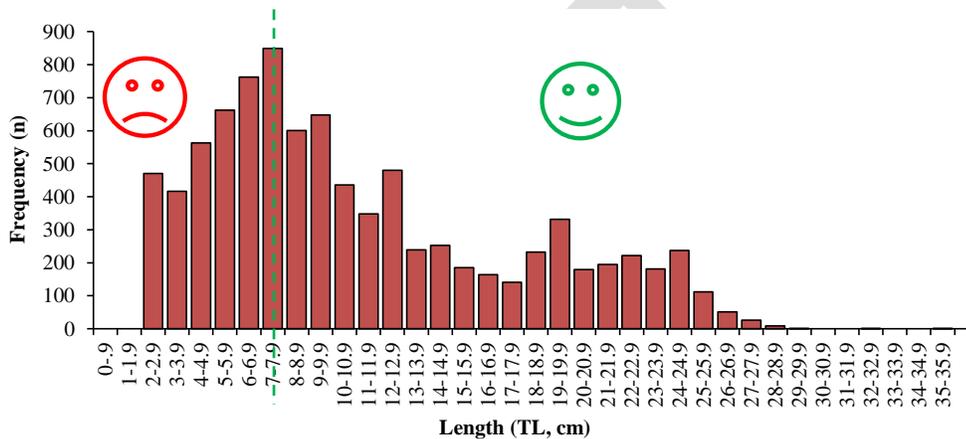
**Comment [IB2]:** Margaret can you confirm 2014 figures:  
The 90tons is for Jan to June: we don't have the Jul-Dec 2014 quantity

<sup>7</sup>Adams, T. 1992. Resource aspects of the Fiji beche-de-mer industry.SPC Beche-de-mer Information Bulletin 4.

force, quantities of undersize beche-de-mer exported was reported in 1990<sup>(6)</sup>. Ram 2010<sup>8</sup> also reports that there was evidence of undersize beche-de-mer and of sandfish (dairo) being exported.

Sampling of lengths of 500 specimens of 17 species of processed beche-de-mer prior to packing for export in September 2014 by the Department of Fisheries discovered that 35% of all beche-de-mer sampled were below 7.6 cm minimum length restriction (figure 2).

Many communities throughout the country have management action plans with the aim of managing coastal resources. However, poaching for sea cucumber in some community-managed marine areas has limited the effectiveness of community management initiatives.



**Figure 2.** Size frequency of 17 species of processed sea cucumber (beche-de-mer) destined for export in 2014. The green dashed line indicate the current minimum size (7.6cm). Sample size; 8997. (Source, Fiji Department of Fisheries).

### **State of Resources from in-water assessments**

Results from in-water assessment in 2012/2013 show that:

- 1) Average sizes of all species, except deepwater blackfish (Table 2) are small, indicating that most sea cucumbers recorded are sub adults of below size at reproductive maturity. This means that a significant proportion of sea cucumber stocks are unable to reproduce and stocks will therefore continue to decline unless these sub adults and juveniles are protected from fishing and left on the reef to contribute to population replenishment as they grow and mature.

<sup>8</sup> Ram, R., Friedman, K. and Sobey, M.N. 2010. Impacts of harvesting and post-harvesting processing methods on the quality and value of beche-de-mer in Fiji Islands. SPC Beche-de-mer Information Bulletin 30.

- 2) Densities are low (Table 3) as a result of high fishing pressure. Low densities contribute to further stock declines. Sea cucumbers are relatively sedentary animals with males and females needing to be close together for successful reproduction. At very low densities sea cucumbers can no longer reproduce effectively.

A combination of low average sizes and low densities and the continued uncontrolled exploitation of sea cucumbers will result in populations not being able to keep pace with natural mortality (e.g. predation). Some stocks will continue to decline and likely disappear from these areas entirely. Should this occur, it will be detrimental for coastal communities and biodiversity of Fiji. To prevent further deterioration of sea cucumber stocks, action is required to formulate policy and regulations for the management of Fiji's sea cucumber fishery.

**Table 2.** Average size (cm) of several species of sea cucumber assessed by transect (RBt) and manta tow (MT) surveys in Fiji, compared to regional common and maximum sizes. Data are from in-water assessments conducted at nine sites over the period August 2012-May 2013 (<sup>9</sup>). All size data were aggregated to determine overall average sizes.

Common name	Fiji	Region <sup>10</sup>	
	Average size (cm)	Common size (cm)	Maximum size (cm)
Amberfish	na	63	89
Black teatfish	13	34	54
Brown curryfish	14	20	36
Brown sandfish	14	31	42
Chalkfish	30	22	32
Curryfish	15	39	55
Deepwater blackfish	31	30	35
Deepwater redfish	13	15	36
Dragonfish/peanutfish	9	32	39
Elephant trunkfish	43	48	66
Flowerfish	27	38	48
Golden sandfish	na	32	46
Greenfish	15	23	38
Hairy blackfish	13	20	30
Loli's mother	na	na	na
Lollyfish	17	23	65
Pinkfish	16	24	38
Prickly redfish	34	55	70

<sup>9</sup> Pakoa K., Saladrau W., Lalavanua W., Valotu D., Tuinasavusavu I., Sharp M., Bertram I., (2013) The status of sea cucumber resources and fisheries management in Fiji. Noumea, New Caledonia: Secretariat of the Pacific Community. 49 pp.

<sup>10</sup> Purcell, S., Tardy, E., Desurmont, A. and Friedman, K. 2008. Commercial holothurians of the tropical Pacific. Noumea: WorldFish Center and Secretariat of the Pacific Community

Sandfish	23	24	32
Slender sea cucumber		na	na
Snakefish	24	35	43
Spiky deepwater redfish		na	na
Stonefish	16	22	24
Surf redfish	17	24	38
Tigerfish	30	37	60
White snakefish	13	21	28
White teatfish*	33	41	55

**Table 3.** Average densities (individuals/hectare) of several species of sea cucumber assessed by transect (RBT) and manta tow (MT) surveys in Fiji, compared to regional reference density<sup>11</sup>. Data are from in-water assessments conducted at nine sites over the period August 2012-May 2013. All density data were aggregated to determine overall average densities.

Common name	Reef Benthos Transect survey			Manta Tow survey		
	Fiji density (ind/ha)	Regional reference density (ind/ha)	Fiji density as % of RBT reference density	Fiji density (ind/ha)	Regional reference density (ind/ha)	Fiji density as % of Manta tow reference density
Amberfish				0.6	20	3%
Black teatfish	46	50	92%	1.2	10	12%
Brown curryfish						
Brown sandfish	53	100	53%	9.2	160	6%
Chalkfish	370	1400	26%			
Curryfish	28	100	28%	1.4	130	1%
Deepwater blackfish						
Deepwater redfish						
Dragonfish/peanutfish						
Elephant trunkfish	6	10	57%	1.5	10	15%
Flowerfish	15	100	15%	6.1	50	12%
Golden sandfish						
Greenfish	18	3500	1%	4.5	1000	1%
Hairy blackfish	2	150	1%			
Loli's mother						
Lollyfish	206	5600	4%	11.6	2400	1%
Pinkfish	13	260	5%	2.8	250	1%
Prickly redfish		30		0.5	10	5%
Sandfish	159	700	23%			
Slender sea cucumber						
Snakefish	3	1100		5.3	350	2%

<sup>11</sup> Pakoa K., Friedman K., Moore B., Tardy E., and Bertram I. 2014. Assessing tropical marine invertebrates: a manual for Pacific Island resources managers. Secretariat of the Pacific Community. 118pp.

Spiky deepwater redfish						
Stonefish	1	10	12%			
Surf redfish	7	200	3%	0.5	20	3%
Tigerfish	4	120	4%	1.2	50	2%
White snakefish						
White teatfish		20		0.6		6%

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### Schedule 1: Conditions for sea cucumber export license

As Sea Cucumber Export License holder, I understand that:

I can only purchase, trade, pack or have in my possessions the sea cucumber species outline in Table A.

The quota of processed product I can export for each species during this license period are outlined in Table A:

**Table A:**

Species common/local name	FAO Code	Quota (kg processed dried weight)
A		XXX
B		XXX
C		XXX

I must not be involved in any fishing activities or provide or finance UBA diving gears or UBA compressors to fishers for collecting sea cucumbers;

I must not export any sea cucumber species that are smaller than the dried forms as specified by the national sea cucumber management plan or regulations (schedule 4).

I can only export fully processed (dried) beche-de-mer, I must not export semi processed, broken, strips or pieces of beche-de-mer.

I must not pack different processed sea cucumber species together in the same bag, each species is to be packed in separate bags.

I must submit an export declaration invoice to Fisheries and Customs Departments for all consignments of sea cucumber I intend to export.

Fisheries Department or Customs Department may refuse to issue an export permit if I provide misleading, false or incomplete information or I do not declare all sea cucumbers intended for export.

I must provide true and accurate information on the sea cucumber export declaration invoice and sea cucumber monthly log sheets.

Authorized officer/s shall be on site to inspect my consignment when I pack sea cucumber product (beche-de-mer) for export (for example packing beche-de-mer product into a reefer container or in containers for airfreight).

I must not open my shipping container after inspection and which has been sealed by an authorised officer.

I must not hold more than one sea cucumber export license at any one time. This condition applies to any manner of holding, whether as a legal holder, a beneficial holder, a part holder or by the use of any nominee.

Upon request, I must present my license to any authorized officer.

Upon request, I must cooperate and allow my products, holding facility or packaged consignments of sea cucumbers to be inspected by any authorized officer.

The Permanent Secretary may suspend or revoke my license if I do not comply with the terms and conditions of this license and I may not renew a revoked license for one year from the date of revocation.

**Schedule 2: Fees (FJD): Fees are non-refundable**

Sea cucumber export license application fee 1,000  
 Annual sea cucumber export licence fee 45,000

**Comment [IB3]:** Please discuss this with Director and Anare.

**Schedule 3: Sea cucumber license application form**

Address to: The Permanent Secretary  
 Ministry of Fisheries and Forests  
 PO Box 2218  
 Suva, Fiji

Applicants are required to provide the following:

Name of applicant: Bio-data (photo) page of valid passport Address (physical location including contact details, street and postal address, phone number and email) of packing/exporting establishment:	Attachment 1
Proof of business registration (Investment Fiji, FIRCA certification, business registration, Tax Identification Number)	Attachment 2
Business plan: Length of time (yrs.) the company/business has continuously been involved in Fiji sea cucumber fishery Management and shareholding structure of the company/business Staffing (provide list of staff and positions within the business) List of local agents/buyers and contacts (name, phone or email contacts) List of foreign agents and export price list (in English) Any intention to assist with sea cucumber fishery research or assistance to communities (please describe)	Attachment 3
HACCP/health accreditation of storage/packing/export facility	Attachment 4
Police Report (if any)	Attachment 5
List of prices by species and product you intend to pay local fishers or processor (product = unprocessed, semi processed, frozen, fully processed BDM).	Attachment 6
Application Fee of \$1000.00 FJD (non-refundable)	Attachment 7

I declare that I have answered all the questions truthfully and to the best of my knowledge and that I am required to report any changes in the information contained in this form to the Permanent Secretary of Ministry of Fisheries and Forests within 7 days of the change.

Signature of Applicant: ..... Date:.....

Name of Applicant: .....

**Schedule 4: Minimum export size (dry size in cm) for beche-de-mer.**

Minimum wet sizes are used as a guide for fishers and processors.

Short Code	Common name	Local name	Minimum size (cm)	
			Wet	Dry
<b>HLX</b>	Amberfish	Basi	40	15
<b>JDG</b>	Black teatfish	Loloa	30	15
<b>JPW</b>	Brown curryfish	Laulevu	25	10
<b>BDV</b>	Brown sandfish	Vula	35	15
<b>JNG</b>	Curryfish	Laulevu, Kari, Lokoloko ni qio	35	15
<b>YGP</b>	Deepwater blackfish	Dri ni cakau	30	15
<b>KUE</b>	Deepwater redfish	Tarasea	25	10
<b>KUN</b>	Dragonfish/peanutfish	Katapila	20	10
<b>HOZ</b>	Elephant trunkfish	Tinanidairo, Dairo ni toba	35	15
<b>EHV</b>	Flowerfish	Senikau	30	15
<b>JCO</b>	Golden sandfish	Dairo kula	25	10
<b>JCC</b>	Greenfish	Greenfish , Barasi	20	10
<b>KUQ</b>	Hairy blackfish	Dri, Driloa	25	10
<b>FLM</b>	Loli's mother	Tina niloli	40	20
<b>HFA</b>	Lollyfish	Loliloli (Lolini cakau)	30	10
<b>HFE</b>	Pinkfish	Lolipiqi	30	15
<b>TFQ</b>	Prickly redfish	Sucudrau	45	20
<b>HHW</b>	Snakefish	Yarabale, Ika lo	40	20
<b>SDR</b>	Spiky deepwater redfish	Tarasea	25	10
<b>YVV</b>	Stonefish	Dritabua, Drivatu	20	10
<b>KUY</b>	Surf redfish	Tarasea	25	10
<b>KUW</b>	Tigerfish	Vula ni cakau, Vulawadrawadra	30	15
<b>HFF</b>	White teatfish	Sucuwalu	35	15

**Schedule 5: Sea cucumber export declaration invoice**

*(To be completed by licensee prior to export: must be submitted five (5) working days before export)*

Send completed form to: The Director,  
 Department of Fisheries (Ministry of Fisheries and Forests)  
 Phone 3301011, 3301611, PO Box 2218  
 Suva, Fiji

**Name of Exporting company:** ..... **Date of shipment:**.....

**Sea cucumber Export License No.:** ..... **Port of Exit:** .....

**Export Destination and Company:** .....

Species code	BDM Grade	No. of bags/species	Average No. of pieces/bag	Total weight of all bags (kg)	Local purchase value FJD/kg
<b>TOTAL</b>					

Amberfish (HLX), Black teatfish (JDG), Brown curryfish (JPW), Brown sandfish (BDV), Curryfish (JNG), Deepwater blackfish (YGP), Deepwater redfish (KUE), Dragonfish (KUN), Elephant trunkfish (HOZ), Flowerfish (EHV), Greenfish (JCC), Golden sandfish (JCO), Hairy blackfish (KUQ), Loli’s mother (FLM), Lollyfish (HFA), Pinkfish (HFE), Prickly redfish (TFQ), Snakefish (HHW), Spiky deepwater redfish (SDR), Stonefish (YVV), Surf redfish (KUY), Tigerfish (KUW), White teatfish (HFF).

**Attachment 1:** Sea cucumber (beche-de-mer) commercial importer invoice (i.e. the importers price list for this consignment) must be attached to this export declaration invoice. The importer invoice must be in English.

Name and Signature:.....  
 Sea Cucumber Export Licensee

Name and Signature:.....  
 Authorized Officer/Inspector (1)

Date:.....

Date:.....

Name and Signature:.....  
 Authorized Officer/Inspector (2)

Date:.....

**Schedule 6: Sea cucumber monthly log**

To be submitted by licensed sea cucumber exporters by the 7<sup>th</sup> day of the month following the month of reporting (e.g., submit on 7<sup>th</sup> of June when reporting for May).

Send completed form to: The Director,  
 Department of Fisheries (Ministry of Fisheries and Forests)  
 Phone 3301011, 3301611, PO Box 2218  
 Suva, Fiji

**Name of company:** ..... **Reporting Month:** .....

**License No:** ..... **Date:** .....

Date	Product Source (District)	Product Source (Fisher or Buyers license number)	Species Code	Number of pieces	Total weight (kg)	Product type *	Local Purchase Value (FJD/kg)

Amberfish (HLX), Black teatfish (JDG), Brown curryfish (JPW), Brown sandfish (BDV), Curryfish (JNG), Deepwater blackfish (YGP), Deepwater redfish (KUE), Dragonfish (KUN), Elephant trunkfish (HOZ), Flowerfish (EHV), Greenfish (JCC), Golden sandfish (JCO), Hairy blackfish (KUQ), Loli’s mother (FLM), Lollyfish (HFA), Pinkfish (HFE), Prickly redfish (TFQ), Snakefish (HHW), Spiky deepwater redfish (SDR), Stonefish (YVV), Surf redfish (KUY), Tigerfish (KUW), White teatfish (HFF).

\*Product Type: unprocessed (UP) semi-processed (SP) dried BDM product (DP)

**SIGNATURE:**.....**DATE:** .....

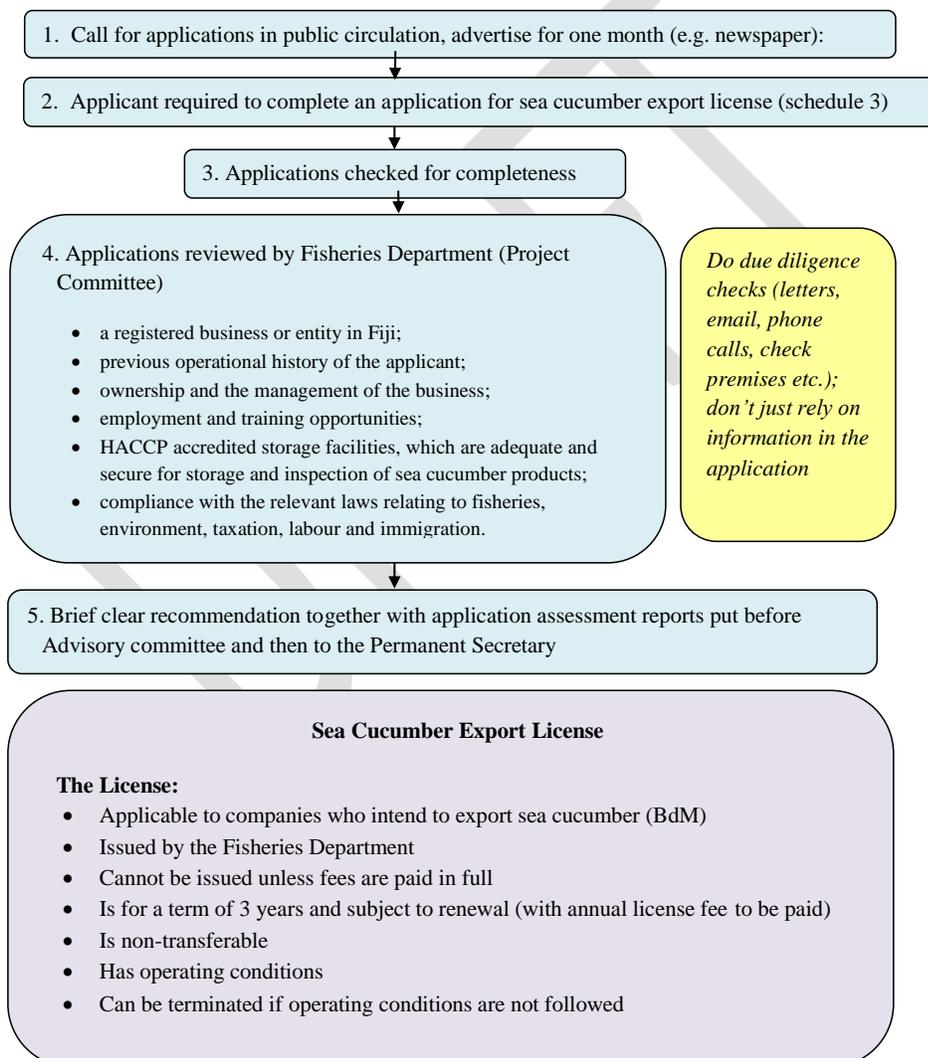
**Company owner**

Text from here on, are not part of the plan, they are supporting documents that will help Fisheries Department: I place these doc's in the plan for now, so I don't lose them amongst my files

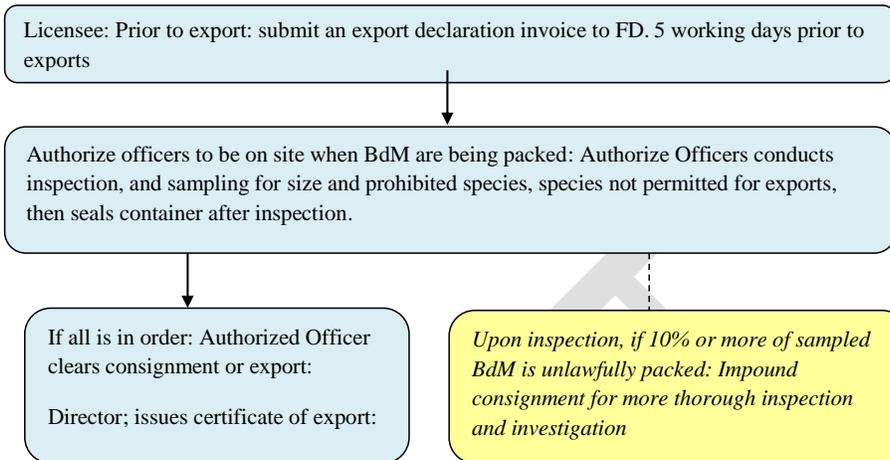
**Comment [IB4]:** Remove these sections when submitting the plan for PS, Minister approval:

### draft Fiji Sea Cucumber Export License process

The flow chart below illustrates the process to follow for advertising, applying, reviewing and issuing sea cucumber export license. The License Applicant Prioritization Criteria process criteria have been set up so that as far as possible, Fisheries Department may conduct a review of the application including due diligence checks and will be able to determine a “quantitative score” for each applicant.



Flow chart below illustrates the process to follow when exporting sea cucumber (BdM)



DRAFT

### Draft: Sea Cucumber Export License Applicant Prioritization Criteria

These criteria are intended to give effect to the objectives of the Sea Cucumber Management Plan (section 5.3) and should be the main criteria used by Fiji Ministry of Fisheries and Forests (Department of Fisheries) in prioritising applicants for Sea Cucumber Export Licenses. The criteria have been set up so that as far as possible, Department of Fisheries may conduct due diligence checks and will be able to determine a quantitative “score” for each applicant.

Applicants must submit application by *dd/mm/yy* (date).

Applications submitted by persons under the age of 18 years will not be accepted;

All completed application forms shall be submitted to the Permanent Secretary;

Applications must be accompanied by all information and or records requested by the Permanent Secretary and the application fee of FJD1000.00.

Criterion	Rationale	Value (points)
Has the applicant paid the application fee and provided all information requested		Yes- review application No – disregard application
Is the applicant registered with Investment Fiji and FIRCA;	<i>National requirement etc etc etc</i>	Compulsory requirement
Has the applicant provided a business plan including the management and shareholding structure, staff of the business, training offered, anticipated export quantities and list of local agents;	The provision of business plans helps with the license application vetting process	Compulsory requirement
Is/are the beneficial ownership of the applicant Fiji national/s	The objective is to allow economic opportunities to Fiji citizens, and operators who intend to do business in Fiji. Providing extended benefits to Fiji and her people.	Yes: 5 No: 0
Has the applicant provided a list and contact details for local agents/BDM buyers, middlemen	This enables the tracing of local agents for better understanding the complexities in the BDM market chain, so as for future management intervention if needed	Yes: 4 No: 0
Has the applicant provided established connections and price list with buyers at overseas markets	This provides a better understanding of international business connections and international prices for beche-de-mer.	Yes: 4 No: 0

Has the applicant demonstrated that s/he has or will acquire adequate and secure storage facilities (HACCP accredited)	The objective is to award operators who has adequate and accredited facilities	Yes: 3 No: 0
Has the applicant any history of non-co-operation or non-compliance with conservation and management measures (in sea cucumber or any other fishery measures) imposed by the Department of Fisheries, and other relevant laws such as taxation, immigration and labour laws;	Where possible, licensing compliant operators is seen as beneficial to the entire fishery.	Yes: -5 No: +5
Has the applicant any non-cooperative history of business operations in provinces/islands of Fiji	The objective is to license operators who have a favourable history and/or will cooperate with Provinces, communities for the benefit of all in the fishery.	Yes: -5 No: +5
Has the applicant provided a sea cucumber (by species and product type) price list offered to local harvesters/processors, and are the prices reasonable for Fiji	The value chain and pricing structure of sea cucumber is extremely complex. This information would help determine or better understand BDM prices of various products (value chain) and are they favourable/reasonable to Fiji	Price list Yes: 2 No: 0  Favourable prices Yes: 3 No: 0
Has the applicant demonstrated intentions and ability to cooperate and assist in research and/or conservation or management of sea cucumber resources/fishery	There is still a lot of information that is required for better management of this fishery, participating in research will help reduce the cost of research, and demonstrates that the applicant is willing to fill the gap of knowledge regarding Fiji sea cucumber fishery and to assist communities in their effort in managing sea cucumber or marine resources in general.	Yes: 5 No: 0