

## **THE NATIONAL BECHE-DE-MER FISHERY MANAGEMENT PLAN**

The National Fisheries Authority, by virtue of powers conferred by Section 28 of the *Fisheries Management Act, 1998* hereby give notice of the National Beche-de-mer Fishery Management Plan to supersede all previous provincial beche-de-mer fishery management plans and to take effect on and from the date approved and signed by the Fisheries Minister (the Minister).

### **1. CITATION**

This Management Plan may be cited as the ‘National Beche-de-mer Fishery Management Plan’ (the Management Plan). The plan shall effect all aspects of beche-de-mer fishing industry in Papua New Guinea.

### **2. SCOPE**

- (a) This Management Plan applies –
  - (i) to all fishing, handling and marketing activities related to Beche-de-mer in PNG (“the Management Area”); and
  - (ii) to all species of Beche-de-mer as defined in Clause 3 - Interpretation
- (b) For the purposes of Section 28 of the *Fisheries Management Act 1998* (the Act), this Plan is subject to National Fisheries Board endorsement on recommendation of the National Fisheries Authority.
- (c) Such endorsement by the National Fisheries Board may be revoked at anytime.

### **3. INTERPRETATION**

In this Management Plan, unless the contrary intention applies-

- “Beche-de-mer (BDM)” means all forms of beche-de-mer product under the species of the class Holothuridea;
- “Beche-de-mer Fishery Management Committee (BMC)” means the Committee established under clause 8.
- “Board” means the National Fisheries Board;
- “Convention” means the United Nations Convention on the Law of the Sea, 1982;
- “Governor” means the Governor of respective province and may include an Acting Governor;
- “Local Level Government (LLG)” means a Local Level Government established within the province and includes the town council;
- “NFA” means the National Fisheries Authority;
- “Maximum sustainable yield” means the highest possible catch of beche-de-mer that may be taken from the Management Area with minimal effect on the ability of the stock to replenish itself;
- “Minister” means the National Minister for Fisheries;
- “Province” means the geographical area within the political boundary of a province as refined by Law;

“Provincial Executive Council (PEC)” means the Provincial Executive Council of the Provincial Government;

“Reef” includes lagoons and shallow water areas with Beche-de-mer.

“Total Allowable Catch (TAC)” means the set amount of catch that is allowed to be taken out of the fishery in a season;

“Traditional management practices” means methods for conservation of marine and coastal resources practised by the traditional indigenous people of a province that have been passed down from generation to generation.

#### **4. OBJECTIVE**

The objective of this Management Plan is to:-

- (a) manage the beche-de-mer fishery in PNG so that the size of the stock is moving towards the maximum sustainable yield (MSY), and to maintain the fishery at an economically sustainable level; and
- (b) safeguard the beche-de-mer fishery in PNG as a source of income for the resource owners and for the people of PNG; and
- (c) promote good fisheries management practices in PNG and to promote the beche-de-mer fishery as a sustainable fishery; and
- (d) to encourage in each province, where appropriate, self regulation in the fishery through sustainable traditional management practises; and
- (e) apply the precautionary approach in the management of the fishery in PNG.

#### **5. PRECAUTIONARY APPROACH**

Consistent with relevant international instruments including most common principles of the precautionary approach developed pursuant to the Convention and management objectives of the Authority, precautionary approaches of management shall apply in respect of the species specified in this Plan in the following manner;

- (a) In the absence of adequate scientific data, NFA shall take into account any uncertainties with respect to the size and productivity of the stock, to other management references points such as maximum sustainable yield, the level and distribution of fishing mortality, and the impact of fishing activities on associated and dependent species, and including climatic, oceanic, environmental and socio-economic conditions.
- (b) In managing the beche-de-mer fishery, NFA shall consider the associated ecosystems on reefs within PNG. NFA shall develop data collection and research projects to assess the impact of fishing on non-target species and their environment, adopt plans as necessary to ensure the conservation of non target species and consider the protection of habitats of special concern.
- (c) The absence of adequate scientific information shall not be used as a reason for postponing or failing to take measures to protect the target and non-target species in each provincial beche-de-mer fishery.
- (d) The precautionary approach shall be based on the best scientific information available, including appropriate techniques and be aimed at setting stock specific minimum standards for conservation and management.

- (e) NFA shall, in collaboration with relevant persons and reputable organisations in PNG or the world, develop systems to collect data, and to undertake research into conservation of the stock and the protection of habitats.

## **6. MANAGEMENT MEASURES**

### **Licensing**

- (1) The beche-de-mer industry is a restricted industry under the laws of Papua New Guinea. Therefore a non-citizen shall not –
  - (a) be issued with any licence; or
  - (b) engage in any part of the beche-de-mer fishing industry; or
  - (c) finance the purchase of any beche-de-mer product or equipment used in the beche-de-mer processing.
- (2) Export licences shall only be considered by NFA after the endorsement from PEC;
  - (a) Export facilities, storage licences and buyer's licences shall be issued only for the specific handling of sedentary resources.
  - (b) There shall be a maximum of three (3) export licences issued in each Province under the following criteria;
    - (i) a person must not hold a licence, or have financial interest in the beche-de-mer fishery in any other Province of Papua New Guinea; and
    - (ii) an application for an export licence or renewal must show by declaration compliance with sub-clause (b)(i) of this clause.
- (3) Buyer's and storage licences shall be endorsed by the Beche-de-mer Fishery Management Committee and PEC and issued by NFA.
- (4) There shall be two categories of buyer's licence:–
  - (a) a buyer's licence for use within a specified management area; and
  - (b) export buyer's licence issued to an exporter to cover both mobile and onshore buying facilities operating in the management area.
- (5) A buyer must not be financed by a non-citizen or by an export licence holder based outside the Province.
- (6) Licences are valid for one year and subject to renewal, unless there has been contravention of licensing conditions, Fisheries Regulations and or/ provisions of this Management Plan.

### **Size Limits**

- (1) For the purpose of this Management Plan, the new size restriction for PNG is those specified in **Schedule 1**.
- (2) Purchasing and handling of undersized products shall result in the confiscation of the product and a review of the purchasers ability to continuing to hold a license issued under this Management Plan.

## **Gear Restrictions**

- (1) The use of underwater breathing apparatus are banned from being used for the purpose of fishing for any beche-de-mer species.
- (2) The use of under water lights or surface lights in the night for the purpose of fishing for beche-de-mer is banned in PNG.

## **Total Allowable Catch (TAC)**

- (1) A total allowable catch for each province is hereby established for each twelve month period on the commencement date of each province in each year and consisting of –
  - (a) Western Province
    - (i) Twenty tonnes of specie specified in Schedule 3(a); and
    - (ii) Forty tonnes of specie specified in Schedule 3(b).
    - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
  - (b) Central Province & NCD
    - (i) Twenty tonnes of specie specified in Schedule 3(a); and
    - (ii) Forty tonnes of specie specified in Schedule 3(b).
    - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
  - (c) Milne Bay Province
    - (i) Sixty tonnes of specie specified in Schedule 3(a); and
    - (ii) Eighty tonnes of specie specified in Schedule 3(b).
    - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
  - (d) Oro Province
    - (i) Forty tonnes of specie specified in Schedule 3(a); and
    - (ii) Sixty tonnes of specie specified in Schedule 3(b).
    - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
  - (e) Morobe Province
    - (i) Forty tonnes of specie specified in Schedule 3(a); and
    - (ii) Sixty tonnes of specie specified in Schedule 3(b).
    - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
  - (f) Madang Province
    - (i) Forty tonnes of specie specified in Schedule 3(a); and
    - (ii) Sixty tonnes of specie specified in Schedule 3(b).
    - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.

- (g) East Sepik Province
  - (i) Forty tonnes of specie specified in Schedule 3(a); and
  - (ii) Fifty tonnes of specie specified in Schedule 3(b).
  - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
- (h) Sanduan Province
  - (i) Thirty tonnes of specie specified in Schedule 3(a); and
  - (ii) Forty tonnes of specie specified in Schedule 3(b).
  - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
- (i) West New Britain Province
  - (i) Sixty tonnes of specie specified in Schedule 3(a); and
  - (ii) Eighty tonnes of specie specified in Schedule 3(b).
  - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
- (j) East New Britain Province
  - (i) Sixty tonnes of specie specified in Schedule 3(a); and
  - (ii) Eighty tonnes of specie specified in Schedule 3(b).
  - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
- (k) New Ireland Province
  - (i) Sixty tonnes of specie specified in Schedule 3(a); and
  - (ii) Eighty tonnes of specie specified in Schedule 3(b).
  - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
- (l) Manus Province
  - (i) Forty tonnes of specie specified in Schedule 3(a); and
  - (ii) Sixty tonnes of specie specified in Schedule 3(b).
  - (iii) the amount specified in sub-clause (i)&(ii) shall be monitored by the NFA and Beche-de-mer Fishery Management Committee and reviewed from time to time.
- (2) Notwithstanding the provisions of sub-clause (1) of this Clause, NFA may, after consultation with Beche-de-mer Fishery Management Committee, place restriction on the harvesting of certain specie in certain areas of each province for specified period.
- (3) Fishing shall cease as soon as the TAC set for respective species grouping or when the accumulative total for the fishery is reached.

#### **Closed Seasons.**

All harvesting, buying, selling and storage of beche-de-mer shall cease at the beginning of the closed season declared after the TAC is reached.

Compulsory closure for all provinces shall occur in each year from the 1<sup>st</sup> October until 15<sup>th</sup> day of January. In effecting provincial closure BMC shall monitor and report to NFA or Provincial Fisheries Officer any illegal activities in the province during the closure.

#### **Marketing -**

- (1) All products harvested from one province shall be exported from that province, through the designated Port of Export. No products shall be moved out of a province or imported from another province without written recommendation from the Beche-de-mer Fishery Management Committee and with written approval from the Managing Director.
- (2) Any product –
  - (a) purchased or obtained by unlicensed buyers or traders; or
  - (b) by persons financed by non-citizens or exporters based outside of the Province or involved in inter Province transfer, may be confiscated by the Authority and subsequently disposed by it.
- (3) All products packed for export will be graded by species, size and quality. The standard common trade names to be used and sizes are specified in **Schedule 2**. The guideline on the quality based on odour and water content is specified in **Schedule 3**.
- (4) All products will be packed in standard weights of 40 kg using poly bags or copra bags. The bags will be labelled with the following standard labels: ***Products of Papua New Guinea, Species Name and Grade***. Where the products are shipped by air, a poly bag should be used or where the product is shipped by sea a copra bag should be used, in order to maintain quality.
- (5) All products bought from the fishermen will be graded using the matters specified in **Schedule 2 & 3**.

#### **Traditional Management Measures**

- (1) Traditional management measures currently existing throughout National are recognised and will be considered for incorporation into the Management Plan by the Beche-de-mer Fishery Management Committee. The Beche-de-mer Fishery Management Committee in consultation with the Authority may request a study on the traditional Management system being used in a specific area. The Authority shall publish the document in the National Gazette as the official record of traditional management system for the specified area.
- (2) Traditional management areas which feature closed and open season and closed area may be submitted to the BMC for screening and incorporation as a component of the Beche-de-mer fishery management plan for the specific area.
- (3) All traditional open season will cease in the event of a Province wide closed season imposed by the Minister by notice published in the National Gazette.

**7. MONITORING**

All licence holders will provide data to NFA on a monthly basis showing –

- (1) amount and grade of each specie purchased, including rejected;
- (2) LLG area of origin.

**8. BECHE-DE-MER FISHERY MANAGEMENT COMMITTEE**

- (1) A Beche-de-mer Fishery Management Committee (BMC) for each province is hereby established.

- (2) The role of the Committee is –

- (a) to review the Management Plan in consultation with NFA and stakeholders;
- (b) to review all license applications and make appropriate recommendations to the PEC; and
- (c) to consider issues that may affect the beche-de-mer fishery in the Province; and
- (d) to undertake such other matters as the PEC and / or NFA determines and or directs.

- (3) (a) The Committee shall be appointed by the PEC and shall consist of

- (i) the Member of the PEC responsible for Fisheries or his nominee who shall be the Chairman; and
- (ii) an officer of the Provincial Administration who shall be the Deputy Chairman; and
- (iii) three resource owners; and
- (iv) an exporters representative; and
- (v) a buyers representative.

- (b) Members appointed under sub-clause (iii), (iv) and (v) of this Clause shall be appointed for a three-year term.

- (4) The Committee shall meet at least three times a year. The Chairman may convene a special meeting if there is an urgent requirement.

- (5) The secretarial duties of the Beche-de-mer Fishery Management Committee shall be performed by the Provincial Fisheries Office.

- (6) Advisers to the Beche-de-mer Fishery Management Committee consisting of –

- (a) a representative of the NGOs; and
- (b) a nominee of the Department of Environment and Conservation; and
- (c) an officer of NFA; and
- (d) such other advisers, as may from time to time be considered necessary, may be appointed by the PEC.

**9. ROLE OF LOCAL LEVEL GOVERNMENT (LLG)**

- (1) The role of Local Level Governments shall be to ensure that the resource is sustainable.

- (2) The functions shall include –

- (a) establishing measures to settle disputes which may arise over the ownership or poaching of resources; and

- (b) ensuring that all licensed buyers within their area have licence to operate; and
- (c) monitoring the activity of buyers in the LLG area and report any unlicensed buyer to the BMC; and
- (d) To monitor that-
  - (i) there is no involvement by non-citizens; and
  - (ii) there are no inter Provincial transfers; and
  - (iii) to carry out such other matters as the BMC may determine from time to time.
- (e) For the purpose of improving the implementing the provisions of this Management Plan, LLG executive officers and Provincial Fishery Officers may be gazetted in the National Gazette as agents of the BMC.

#### 10. EXPORTERS CONTRIBUTIONS.

- (1) A condition of the issuing of an Export License shall be that the exporter shall contribute 6% of the export value of BDM sold under his license to the National Fisheries Authority on a quarterly basis each year.
- (2) The contribution shall be remitted within 14 days of the end of each quarter.
- (3) The exporters contribution will be allocated by the NFA as follows –
  - (a) two thirds to the province.
  - (b) one sixth to the BMC; and
  - (c) one sixth to the (Research) Fund; and
- (4) (a) There shall be a research plan/programs jointly developed by NFA and each Provincial Government to monitor the fishery and for the purpose of carrying out stock assessment as required from time to time.
- (b) The Authority shall have the overall autonomy to carryout stock assessment as required from time to time.
- (c) For the purpose of clause (4) (b) of this Clause the Authority shall consult the PEC of its programmes.

#### 11. AMENDMENTS

NFA in consultation with each provincial Beche-de-mer Fishery Management Committee shall keep this Management Plan under review as new information is obtained so as to meet its objectives.

### **SCHEDULE 1**

#### ***Minimum Size Restrictions (Live and Dead Length (cm) )for Papua New Guinea***

Common Name	Scientific Name	Live Length	Dry Length
Sandfish	<i>Holothuria scabra</i>	22	10
Black Teatfish	<i>Holothuria nobilis</i>	22	11
White Teatfish	<i>Holothuria fuscogilva</i>	34	17
Lollyfish	<i>Holothuria atra</i>	15	8
Elephant's trunkfish	<i>Holothuria fuscopuntata</i>	24	12
Prickly redfish	<i>Thelenota ananas</i>	25	12
Amberfish	<i>Thelenota anax</i>	25	12
Blackfish	<i>Actinopyga milliaria</i>	15	8



Deepwater redfish	<i>Anctinopyga echinites</i>	16	8
Stonefish	<i>Actinopyga lecanora</i>	15	8
Curryfish	<i>Stichopus variegatus</i>	23	11
Greenfish	<i>Stichopus chloronotus</i>	20	9
Brown sandfish	<i>Bohadschia marmorata</i>	23	11

## **SCHEDULE 2**

### ***Common trade names corresponding to the scientific name and the grading of sizes to be used in PNG.***

<b>Common Name</b>	<b>Scientific Name</b>	<b>Grade</b>	<b>Size</b>
Sandfish	<i>Holothuria scabra</i>	SUPPER	>14 cm
Sandfish	<i>Holothuria scabra</i>	L1	11-13 cm
Sandfish	<i>Holothuria scabra</i>	M1	9-10 cm
Sandfish	<i>Holothuria scabra</i>	S1	8-9 cm
White teatfish	<i>Holothuria fuscogilva</i>	L1	>20 cm
White teatfish	<i>Holothuria fuscogilva</i>	M1	18-20 cm
White teatfish	<i>Holothuria fuscogilva</i>	S1	17-18 cm
Black teatfish	<i>Holothuria nobillis</i>	L1	>16 cm
Black teatfish	<i>Holothuria nobillis</i>	M1	16 cm
Black teatfish	<i>Holothuria nobillis</i>	S1	11-15 cm
Prickly redfish	<i>Thelenota ananas</i>	L1	>16 cm
Prickly redfish	<i>Thelenota ananas</i>	S1	11-16 cm
Surf redfish	<i>Actinopyga mauritiana</i>	L1	>10 cm
Surf redfish	<i>Actinopyga mauritiana</i>	S1	8-10 cm
Blackfish	<i>Actinopyga milliariis</i>	L1	>10 cm
Blackfish	<i>Actinopyga milliariis</i>	S1	8-10 cm
Greenfish	<i>Stichopus chloronotus</i>	L1	>15 cm
Greenfish	<i>Stichopus chloronotus</i>	S1	8-10 cm
Curryfish	<i>Stichopus variegatus</i>	L1	>15 cm
Curryfish	<i>Stichopus variegatus</i>	S1	11-15 cm
Tigerfish	<i>Bohadschia argus</i>	L1	>16 cm
Tigerfish	<i>Bohadschia argus</i>	S1	11-15 cm
Amberfish	<i>Thelenota anax</i>	L1	>16 cm
Amberfish	<i>Thelenota anax</i>	S1	12-16 cm
Lollyfish	<i>Holothuria atra</i>	L1	>17 cm
Lollyfish	<i>Holothuria atra</i>	S1	12-17 cm
Brown sandfish	<i>Bohadschia marmorata</i>	L1	>16 cm
Brown sandfish	<i>Bohadschia marmorata</i>	S1	11-16 cm
Elephant's trunkfish	<i>Holothuria fuscopuntata</i>	L1	>15 cm
Elephant's trunkfish	<i>Holothuria fuscopuntata</i>	S1	8-15 cm

## **SCHEDULE 3**

### ***3(a) The medium to high-grade species***

<b>Common Name</b>	<b>Scientific Name</b>
Sand fish	<i>Holothuria scabra</i>
White teatfish	<i>Holothuria fuscogilva</i>
Black teatfish	<i>Holothuria nobillis</i>
Prickly redfish	<i>Thelenota ananas</i>
Surf redfish	<i>Actinopyga mauritiana</i>
Blackfish	<i>Actinopyga milliariis</i>
Greenfish	<i>Stichopus chloronotus</i>
Curryfish	<i>Stichopus variegatus</i>

**3(b) The low-grade species**

Common Name	Species
Tigerfish	<i>Bohadschia argus</i>
Amberfish	<i>Thelenota anax</i>
Lollyfish	<i>Holothuria atra</i>
Brown sandfish	<i>Bohadschia vitiensis</i>
Chalkfish	<i>Bohadschia marmorata</i>
Elephant's trunkfish	<i>Holothuria fuscopuntata</i>

**3(c) Determination of quality shall be based on appearance, moisture and stage spoilage.**

**Appearance:** Smooth and natural surface should be the normal shape of a good quality product. An uneven shrunken product will result in the product being graded as a low grade.

**Odour:** A good fishy smell is considered good quality. An annoying decomposed smell will result in the product being rejected and discarded.

**Moisture Content:** A hard and dry product with moisture content of 10 to 30 per cent is considered a good quality product. A soft product requires further drying otherwise the product should be rejected and discarded.

**Spoilage:** All beche-de-mer products classified in the high grades, which are spoiled or do not have the natural shape, shall be graded as lower grades. Any product that has chemical spoilage will automatically be rejected.

Approved this.....day of.....2000

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**HON. RON GANARAFO**  
**MINISTER FOR FISHERIES AND MARINE RESOURCES**