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No. G1421

PORT MORESBY, FRIDAY, 15th OCTOBER

[1999

## FISHERIES MANAGEMENT ACT 1998

# MANUS PROVINCE BECHE-DE-MER FISHERY MANAGEMENT PLAN

THE NATIONAL FISHERIES AUTHORITY, by virtue of the power conferred by Section 28 of the Fisheries Management Act 1998 and all powers it enabling, hereunder provide the following fisheries management plan to supercede previous plans on gazettal G1 in 1997 under the Fisheries Act 1994, to take effect on and from the date of approval by the Minister. Province shall devolop systems to coller white, and b

# CITATIONS

had conservation of the grodicated that agree on of bearings This Management Plan shall be cited as 'The Manus Province Beche-de-mer Fishery Management Plan' (Management Plan).

网络阿拉萨斯亚纳里 网络森莱托萨斯岛

### INTERPRETATION 2.

This Management Plan, unless the contrary intention applies:

"Maximum sustainable yield" means the highest possible oatch of beetle-de-mer that may be taken from the management area with minimum effect on the ability of

lap of actionary Approach means setting down restrictions to control harvesting in absence of adequate scientific data. These restrictions include setting of TAC, sea-(ii) Exporting and buying and control fishing efforts provide bris pointing x

Hotal Allowable Catch (TAC): means the set ramount of catch that is allowed to be taken out of the fishery in any one-year or season. The TAC is set at a safe level based on the average annual production or on stock assessment work.

Trabitional Management Practices means method for conservation of marine and coastal resources practiced by traditional ingenious of the Manus Province, that have been passed down from generation to generations and which are not usually formally recorded. only for the specific handling of sedentary resources

SCOPE OF THE MANUS BECHE-DE-MER FISHERY MANAGEMENT PLAN

his Management Plan area shall comprise all waters within the provincial (a) This Management Flatt aregardient benues y locations as a series of Manus.

Into the Management Plan shall include all species of bechet de menor the genus.

(b) The Management Plan shall include all species of bechet de menor the genus.

fal Beche-de-mer processing procedures;

## 4. MANAGEMENT OBJECTIVES

The broad objects of this management plan is to give effect to the Fisheries Management Principles set out in the *Fisheries Management Act 1998*, and specially;

- (a) To manage the beche-de-mer fishery 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.
- (b) To safeguard the beche-de-mer fishery in the Management Area as a source of income for resource owners and for the people of Manus.
- (c) To promote management practices in Manus Province and to promote the beche-de-mer fishery as sustainable fishery.
- (d) To encourage self-regulation through sustainable traditional management practices.

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(e) To manage the fishery at a precautionary approach.

# 5. PRECAUTIONARY APPROACH TO BECHE-DE-MER MANAGEMENT

In accordance with UNCLOS management principles, precautionary shall apply in accordance with the following provisions:

- (a) in the absence of adequate scientific data, NFA shall take into account the uncertainties and set the management measures to be applied.
- (b) The Research and Management Branch in collaboration with the Manus Province shall develop systems to collect data, and to undertake research into conservation of the stock and the protection of habitats.

appring 1960年(1970年)。

## 6. MANAGEMENT MEASURES

The following management measures are to take effect immediately:-

- nem **(a). Licensing arrangements**; /se agai e di anesmi fois vi sudanis your na na m
- (i) All beche-de-mer collected from Manus Province shall be exported from Manus Province. No product shall be moved to another province for sale without clearance from the Provincial Fisheries Authority is accounted.
- (ii) Exporting and buying of becke de mer are restricted activities in Papua of the Second New Guinea. The issuing of dicences shall be carried out with due consideration of the Manus Provincial Government.
- (iii) All buyers licensed shall be endorsed for the buying of beche-de-mer
- (iv) Export facility and storage licenses and buyers licenses shall be issued only for the specific handling of sedentary resources.
- (v) In the future, each applicant for a buyer's licence shall be required to somplete compulsory certified training to be sanctioned by the National Fisheries Authority. The content of the course will consist of the sangement Plan shall include all species of bedding to general Plan shall be required to several training to be sanctioned by the National statement of the course will consist of the sangement Plan shall be required to several training to be sanctioned by the National Statement Plan shall be required to several training to be sanctioned by the National Statement Plan shall be required to several training to be sanctioned by the National Statement Plan shall be required to several training to be sanctioned by the National Statement Plan shall be required to several training to be sanctioned by the National Statement Plan shall be required to several training to be sanctioned by the National Statement Plan shall be required to several training to be sanctioned by the National Statement Plan shall be required to several training to several training to several training to several training train
  - (a) Beche-de-mer processing procedures;

- (b) Quality control;
- (c) Basic beche-de-mer biology;
- (d) Beche-de-mer fishery management; and
- (e) Beche-de-mer marketing.
- (vi) The licensees shall be required to carry out extension services in the Province to ensure production of quality product and proper implementation of the fishery plan.
- (vii) The number of exporters shall be limited to a maximum of four (4) exporters. The current six (6) exporters will be reduced over time, in consultation with the Manus Beche-de-mer Committee.
- (viii) The number of buyers endorsed to each exporter shall be limited to a maximum of five (5) endorsed to each exporter.
- (ix) A buyers licence shall be issued to the person who physically buys products from the fishermen. A buyers licence is not transferable.
  - (x) All licences shall be endorsed by the Manus Provincial Government before submission to the National Fisheries Board for approval.
- (xi) All licence holders shall have their licence automatically terminated if they breach licence conditions, Fisheries Regulations and provisions of the Manus Province Beche-de-mer Management plan:
- (xii) All exporters shall export a minimum of 8 tonnes per year of beche-demer. Failure to do so may result in the non-renewal of the licence.
- (Xiii) Resource owners may apply for a buyers licence to buy beche-de-mer from within traditional boundaries. The number of buyers will be determined after consultation with the resource owners. Biological and economical factors may be considered if the need arises to limit the number of buyer in the traditional boundaries.

# TO DA (b) (Size Limits of each A constance as a level end trial extension as

- (i) Specific to the Manus Beche-de-mer Management Plan; the new size restrictions for Manus are listed in Table 1. These size limits will only apply to beche-de-mer in Manus Province.
- (ii) Purchase and handling of undersized products shall result in the automatic termination of the buyers licence, the exporters licence, and the storage licence upon successful prosecution.

oly, education of Live Length and Dry length for Manus Repvince

buying, salling and storage of beche-de-met shall cease at the beginning of

su bainable yield and will be lineate cumuling to be estimated

Common name	Scientific name	Minimum size dried (cm)	Equivalent (1) 0 minimum (1) (1) (1) Live size(cm)
Sahdrish mon bened	Holothuria scabra	cm <mark>Manus</mark> Fat to expo	(i) Ail progots T
White teatfish	Holothuria fuscogilva	11 17	. 2019:013 (NOUX) 34

Prickly redfish	Thelenota ananas	12	25
Elephant trunkfish	Holothuria fuscopuntata	. 12	24
Blackfish	Actinopyga echinites	8	15
Deep water redfish	Actinophyga miliaris	8	16
Stonefish	Actinophyga lecanora	8	15
Curryfish	Sticopus variegatus	11	23
Greenfish	Sticopus chloronotus	9	20
Brown sandfish	Bohadschia marmorata	11	23
Lollyfish	Holothuria atra	8	15
Amberfish	Thelenota anax	12	25

## (c) -Gear Restrictions

- (i) Underwater breathing apparatus (SCUBA and Hookah) are banned from being used in the waters around Manus, for the purpose of fishing for any sea cucumber species for processing into beche-demer production.
- (ii) Underwater or surface lights at night are banned in waters around Manus, for the purpose of fishing for sea cucumber species for the production of beche-de-mer product.

# (d) Species Restriction

A species harvest restriction shall apply based on price. Species to ban from harvest shall be determined by the Manus Provincial Government yearly, based on current market price.

# (e) Total Allowable Catch (TAC)

- (i) An annual TAC of 54 metric tonnes (mt) shall be set for Manus in 1997. The TAC for each year will be based upon the estimated maximum sustainable yield and will be variable according to the estimated recruitment and the level of exploitation. A notice to notify of the TAC for the year will be served by the Minister for Fisheries through the National Gazette.
- (ii) Fishing will cease as soon as the TAC has been reached. Fishing will recommence on 1st February the following year.

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# (f) Closed Season

A compulsory closure will occur each year for 1st October to 31st January. All buying, selling and storage of beche-de-mer shall cease at the beginning of the closed season or a declared closed after the TAC has been reached. No product will be kept in storage after one (1) week after the commencement of closure.

# (g) Marketing"

(i) All products from Manus Province shall be exported from Manus Companies who fail to export from Manus shall automatically lose their Export Licence.

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- How the control of the state of
- (iii) All products packed for export will be graded by species, size and quality.

  | Support | All products packed for export will be graded by species, size and quality.

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  | Support | All products packed for export will be graded by species, size and quality.

  | Support | All products packed for export will be graded for export will b
- (iv) All products will be packed in standard weights of 40 kg using poly bags or copra bags. The bags will be labeled with the following standard labels; Product of Papua New Guinea, Name of Importer, and Name of Exporter, Species Name and Grade. Where the products are shipped by air a poly bag should be used and where the product is shipped by sea a copra bag should be used, in order to maintain quality.

Table 2: Common trade names corresponding to the scientific name and the grading sizes to be used (where grades/size are missing, these will be added, as data becomes available).

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		Scientific name			Size (cm)
White teat fish		Holothuria fuscogil	va	Α	<b>22</b> 92 308°
∂White teatfish	be sent to the	Holothuria Tuscogil	va: 1	B,	wenist of the
Black teatfish	every month	Holothuria nobilis	도한 <i>보</i> 는 기	A THE ST	Officer for en
					त्रीहरू कुरु भागे हिंदू ।
Sandfish	man of perc	Holothurla scabra			
Sandfish		Holothuria scabra	•	<b>B</b> 3/2 5.	12
Prickly redfsish		Thelenota ananas		Α	
Prickly redfish	ingon man	Thelenota analias		PROTEM	SPECIAL CO
Elephant trunkfis	sh.	Holothuria fuscopu	nctata		CHMERC
Snakefish	ssible, traditional difor gazettar	Holothuria edulis 1990 Holothuria leucospi Holothuria leucospi Holothuria atra Thelettota anax	lota		iniM isna XV
Green Prickly	e dosed and do	Sticopus chloronoti	<b>ys</b> - 19941	ageban is	(h). Any credition
activitish nasvo	is Provincial Go	J <i>Gfilopus</i> Variegatus	งบากประช	ed vem	ciosed area
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Appearance: A smooth and natural surface should be the nonative that a good quality product of an uneven shrunken product will result in the product being down graded to a lower grade and its interest to a lower grade with the solution of the considered good quality. An annoying decomposed smell will result in the product being rejected and discarded.

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Moisture content: A hard and dry product with moisture content of ten to thirty percent is considered good quality. A soft product requires further drying otherwise the product should be rejected

Spoilage: All products in the high grades, which are spoiled on do not have the natural shape, shall be down graded to a lower grade. Any product that has any chemical spoilage will be rejected.

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# 7.70 MONITORING TO THE STATE OF THE PARTY OF

- (a) Provision of fisheries data

  (i) In accordance with the Fisheries Management Act 1998 licensed buyers obligated to submit data on catch and effort as well as marketing, for the purpose of this management plan.
  - (ii) Licensed buyers shall record all beche-de-mer bought from the fishermen, in a triplicate receipt form that will include the name of the fisherman, village of the fisherman (if he was fishing within the vicinity of the village) or the fishing area (if he was fishing outside of his village), species, grade, weight and price. Where possible the hours or days fishing for the products being sold will be recorded. Some income
  - (iii) The duplicate copy of the invoice/receipt/shall be sent to the local/Fisheries Officer for entry into a computer database once every month.
  - (iv) The receipt-book for catch monitoring established by the NFA for the National and Provincial Data Collection Project shall be used to monitor the catch and implement the TAC.

### भारताय है। संस्थानी 8. CONSIDERATION SPECIAL FOR THE TRADITIONAL RESOURCE **OWNERS** Halodium fusconul stata

- (a). Special consideration shall be given to the need to avoid adverse impact on traditional and small-scale fisheries. Where possible, traditional management measures shall be documented and submitted for gazettal notice by the National Minister for Fisheries after consultation with the traditional resource owners and the Manus Provincial Governments
- (b). Any traditional management areas which feature closed and open season and closed area may be submitted to the Manus Provincial Government for screening. The community may recommend appropriate gazette notices for existing traditional management areas. This shall consist of a gazette notice of the closed and open seasons and the definition of the area to be affected.
- All traditional open season will cease in the event of a province wide closed SOURCE THE season imposed by an otice by the Minister for Fisheries of the Source Source
- Appearance: A smooth and natural surface should be the natura Midnama a 900d The Minister shall from time to time give notice of any amendments as new information are obtained to enhance the objectives of this management plan. Odown in pleasing fishy smell is considered good quality. An annoying decomposed small will result in the product being rejected and discarded.

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coastal management Practices income methods for conservation is mented and coastal resources practiced by traditional increases of the reese province that have been passed down from generation to generation and which are not usually formally recorded.

# 3. Scope of the new Ireland Beche-de-Mer Fishert management Plan

- (a) This Management Plan area shall comprise all waters within the provincial boundary of New Ireland Province.
- 29 The management Plan shall include all species of beche-de-mer of the genus violetharia, Thelenota, Activopyga and Bhadschia.

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# FISHERIES MANAGEMENT ACT 1998

# NEW IRELAND PROVINCE BECHE-DE-MER MANAGEMENT PLAN

Section 28 of the *Fisheries Management Act 1998* and all powers it enabling, hereunder provide the following fisheries management plan to supercede previous plans on gazettal G1 in 1997 under the *Fisheries Act 1994*, to take effect on and from the date of approval by the Minister.

# 1. CITATIONS

in consist of

This Management Plan shall be cited as 'New Ireland Province Beche-de-mer

# PATER NO FATERIAL MARKET AT INTERPRETATION

This Management Plan, unless the contrary intention applies;

"Beche-de-mer" \means all species of the class Holothuroidea which are processed through boiling, sun drying or smoke drying and are sold in the open market as a food product;

"Maximum sustainable yield" means the highest possible catch of beche-de-mer that may be taken from the management area with minimum effect on the ability of the stock to continue to replenish itself.

"Precautionary Approach" means setting down restrictions to control harvesting in absence of adequate scientific data. These restrictions include setting of TAC, seasonal and area closure and control fishing efforts.

"Sea cucumber" means all species in the class Holothuroidea.

"Total Allowable Catch (TAC)"means the set amount of catch that is allowed to be taken out of the fishery in any one-year or season. The TAC is set at a safe level based on the average annual production or on stock assessment work.

"Traditional Management Practices" means methods for conservation of marine and coastal resources practiced by traditional indigenous of the New Ireland Province, that have been passed down from generations to generations and which are not usually formally recorded.

# 3. SCOPE OF THE NEW IRELAND BECHE-DE-MER FISHERY MANAGEMENT PLAN

- (a) This Management Plan area shall comprise all waters within the provincial boundary of New Ireland Province.
- (b) The Management Plan shall include all species of beche-de-mer of the genus Holothuria, Thelenota, Actinopyga and Bhadschia.

# **MANAGEMENT OBJECTIVES**

(a) To manage the beche-de-mer fishery 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.

The Parties of the State of the

(b) To safeguard the beche-de-mer fishery in the Management Area as a source of income for resource owners and for the people of New Ireland.

(c) To promote management practices in New Ireland Province and to promote the beche-de-mer fishery as sustainable fishery.

(d) To encourage self-regulation through sustainable traditional management incode**ts from the Telephone Area Area and** practices.

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(e) To manage the fishery at a precautionary approach.

### PRECAUTIONARY APPROACH TO BECHE-DE-MER MANAGEMENT 5.

In accordance with UNCLOS management principles, precautionary shall apply in accordance with the following provisions: Actual Second society process

- (a) in the absence of adequate scientific data, NFA shall take into account the uncertainties and set the management measures to be applied.
- (b) The Research and Management Branch in collaboration with the New Ireland Province shall develop systems to collect data, and to undertake research into conservation of the stock and the protection of habitats.

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### **MANAGEMENT MEASURES** 6.

The following management measures are to take effect immediately:-

- (a). Licensing arrangements
  - BENGAL TREETED BALLET LINES OF THE SECOND LINES All beche-de-mer collected from New Ireland Province shall be exported from New Ireland Province. No product shall be moved to another province for sale without clearance from the Provincial Fisheries Authority was
- Exporting and buying of beche-de-mer are restricted activities in Papua (ii)New Guinea. The issuing of licences shall be carried out with squeety consideration of the New Ireland Provincial Government.
- All buyers licensed shall be endorsed for the buying of beche-de-mer throughout New Ireland Province with due regard to the resources owners.
- Holeman ascentiations 化管环动物 加高的特征 (iv) Export facility and storage licenses and buyers licenses shall be issued only for the specific handling of sedentary resources.
- In the future, each applicant for a buyer's licence shall be required to ment have complete compulsory certified training to be sanctioned by the National policine Eisheries - Authority of The content of sthe woodrse will consist of the any sea cucumber species for properting -: eniwellothe-de-men
  - (a) Beche-de-mer processing procedures;

(a) Underviater or surface lights at the night de contest well well a some

to an a Cons Basic beche-de-mer biology; patitive application, broaden were

(d) Beche-de-mer fishery management; and does no noncome

(e) Beche-de-mer marketing.

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- (vi) The licensees shall be required to carry out extension services in the Province to ensure production of quality product and proper implementation of the fishery plan.
- (vii) The number of exporters shall be limited to a maximum of five (5) exporters. an included the symmetric right separation in the comment of
- (viii) The number of buyers endorsed to each exporter shall be limited to a maximum of five (5) endorsed to each exporter.
- ... (ix) A buyers licence shall be issued to the person who physically buys products from the fishermen. A buyers licence is not transferable.
  - All licences shall be endorsed by the New Ireland Provincial Government before submission to the National Fisheries Board for approval.
- (xi) All licence holders shall have their licence automatically terminated if they breach licence conditions, Fisheries Regulations and provisions of this New Ireland Province Beche-de-mer Management plan.

# (b) Size Limits

- Beche-de-mer sizes smaller than those specified in table 1 shall not satbettaken (live size) or exported (dry size) भे किन अवस्था अस्ति ।
- (ii) Purchase and handling of undersized products shall result in the automatic termination of the buyers licence, the exporters licence, and fish storage licence upon successful prosecution.

PERSONAL TOTAL PROPERTY

Table 1. Schedule for legal minimum dried sizes of beche-de-mer in PNG

returns or theyer	Scientific name  Scientific name  Scientific name  Scientific name  Scientific name	(cm)	Live size(cm)
Sandfish (1997) And (1997)	Holothuria scabra	ng-∞91 <b>38</b> 103-118	4 0.52 <b>18</b> 10 45.574
Black teatfish and harm	Holothuria nobilis		ru (i. h. <b>22</b> gramoqz3
Mhita tantfishar Sec. 1998	Halatharia filisagiliya	1 10 101711 CM 1	176W (Sum <b>y</b> ga, The
Prickly redfish	Thelenota ananas	presentitive vice	22
Blackfish State Control of the	Actinopyga miliaris	re so <b>j</b> eda b	925001 <b>13</b> 0144UG (10
Deepwater redfish	Actinopyga echinites	5.1014	10 The Sweet
Elephant trunkfish	Holothuria fuscopuntata	12	24

# (c) Gear Restrictions, which is traveled a not trackled a room to be determined in the contract of the contrac

and (i) Underwater breathing apparatus (SCUBA and Hookah) are banned from being used in the waters around New-Treland, for the purpose of fishing for any sea cucumber species for processing into week-mer (a) Beche-de-mer processing procedurery production.

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(ii) Underwater or surface lights at the night are banned in waters around New Ireland, for the purpose of fishing for sea cucumber species for the production of beche-de-mer product. (a) Berbe-de ner markeung

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# (d) Species Restriction

A species harvest restriction shall apply based on price. Species to ban from harvest shall be determined by the New Ireland Provincial Government yearly, based on current market price.

- (e) Total Allowable Catch (TAC) (And and the Catch
  - (i) An annual TAC of 80 metric tonnes (mt) shall be set for New Treland in 1997. The TAC for each year will be based upon the estimated maximum sustainable yield (msy) and will be variable according to the estimated recruitment and the level of exploitation. A notice to notify of the TAC for the year will be served by the Minister for Fisheries through the National Gazette.
  - (ii) Fishing will cease as soon as the TAC has been reached. Fishing will recommence on 1st February the following year.

# (f) Closed Season

A compulsory closure will occur in each year from 1<sup>st</sup> October to 31<sup>st</sup> January. All buying, selling and storage of beche-de-mer will cease at the beginning of the closed season declared closed after the TAC for the year is reached. No product will be kept in storage after one (1) week after the commencement of closure.

Appearance: A smooth and natural surface should be a normal slape of a good quality product. An unit en should natural will result in the product being cown

(i) All products from New Ireland Province shall be exported from New Ireland. Companies who fail to export from New Ireland shall automatically lose their Export Licence. Export Licence on a babase panel to be a babase panel to be a failed to be a babase of the local trial and this are the local trial and trial

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- (iii) All products packed for export will be graded to specificate and quality.

  Table 2 provides the standard common trade names to be used and sizes;
  and table 3 provides a guideline on the quality based on odour and water content.

  Leading the standard common trade names to be used and sizes;
  and table 3 provides a guideline on the quality based on odour and water content.
- (iv) All products will be packed in standard weights of 40 kg using poly bags or copra bags. The bags will be labeled with the following standard labels; Product of Papua New Guinea, Name of Importer, and Name of Exporter, Species Name and Grade. Where the products are shipped by air a poly bag beaus hould be used, and where the product is shipped by see a soprar bag should for the

Table 2: Common trade names corresponding to the Scientific hame all the grading is a size the best will be added as becomes an all the selections of the first and the first are the selection. The selection is a size of the selection of the sel

(if he was fishing outside outside outside of the village) outside out

A complete displicate copy of the invoice/receipt shall sem to the local Fisheries Officer for entry into a completer databases indicate the local Fisheries Officer for entry into a completer databases.

Sandfish	Holothuria scabra	Super	15
Sandfish	Holothuria scabra	В	. 12
Prickly redfsish	Theleriota ananas	Α	
Prickly redfish	Thelenota ananas	<b>B</b> :::	100
Elephant trunkfish	Holothuria fuscopunctata		n da Melli
Pinkfish	Holothuria edulis	or the file	urii ek
Snakefish	Holothuria leucospilota	A MIL	
FLollyfish with the profit of the second	riologiana acra	of John He	
Amberfish	Thelenota anax	paliformier The seriode	
Green Prickly	Sticopus chloronotus	uter it	98 C. 3v
Curryfish	Sticopus variegatus		e 1,5 24 s
Blackfish	Actinopyga miliaris	*** *	

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Table 3: Guide for determining quality based on appearance, odour, moisture and stage of spoilage.

Appearance: A smooth and natural surface should be the normal shape of a good quality product. An uneven shrunken product will result in the product being down an graded to a lower grade.

Odour: A pleasing 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 ten to thirty percent is considered good quality. A soft product requires further drying otherwise the the contractor packed to be seen the and approduct should be rejected.

Spoilage. All products in the high grades, which are spoiled or do not have the natural shape, shall be down graded to a lower grade. Any product that has any chemical spoilage will be rejected. REPORT BY THE BURGER BY COLD IN ARTECUTE TO THE CONTROL OF THE BOOK BY CONTROL

# TO THE PROPERTY OF THE PROPERT

Provision of fisheries data

SBOOK IN CACCORDANCE WITH the Fisheries Management Act 1998 licensed buyers obligated to submit data on catch and effort as well as marketing, for the Table 2: Common trade name serves and plantagement plantage gradies grades

THE PART OF THE STATE OF THE PART OF THE STREET

- and (ii) statemsed buyers shall record all beche-de-mer bought from the fishermen, in a triplicate receipt form that will include the name of the fisherman, village of the fisherman (if he was fishing within the vicinity of the village) or the fishing area (if he was fishing outside of his village), species, grade, weight, and price. Where possible the hours or days fishing for the products being sold will be recorded.
  - The duplicate copy of the invoice/receipt shall sent to the local Fisheries Officer for entry into a computer database once every month.

(iv) The receipt-book for catch monitoring established by the NFA for the National and Provincial Data Collection Project shall be used to monitor the catch and implement the TAC.

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# 8. SPECIAL CONSIDERATION FOR THE TRADITIONAL RESOURCE OWNERS

- (a) Special consideration shall be given to the need to avoid adverse impact on traditional and small-scale fisheries. Where possible, traditional management measures shall be documented and submitted for gazettal notice by the National Minister for Fisheries after consultation with the traditional resource owners and the New Ireland Provincial Government.
- (b) Any traditional management areas which feature closed and open season and closed area may be submitted to the New Ireland Provincial Government for screening. The community may recommend appropriate gazette notices for existing traditional management areas. This shall consist of a gazette notice of the closed and open seasons and the definition of the area to be affected.
- (c) All traditional open season will cease in the event of a province wide closed season imposed by a notice by the Minister for Fisheries.

・Indepos a Theory Paston to Soft Lead in

9. AMENDMENTS Any amendment to this Management Plan may be given in Notice through the National Gazette, on recommendation by the National Fisheries Board, when new information are obtained to enhance the objectives in paragraph 4.

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baye) graditionary tached for fooster in dear-shore coastal waters and are recognised by their peceto as hoving traditional ownership rights to lobsten

Chairman

NATIONAL FISHERIES BOARD

Approved this

(a) Apply to but fisheres Waters of Papua New Funda where propositions are perfectly barried and the proposition of the proposi .eeet narvestut komonique la propertie and

The manacing Han shall

Apply to all species of the family Palinulfidae, and Scyllaidae specifically the

tice double-spined lobster Panulinus panicillatus, the valinted lobster Panulinus versicolor,

( Ron Ganarafo

RESTRIBLES SON SELECTION OF STRIPLES CONSIDER PARIETS CONGIDES, scalloped lobster Panulirus fromarus;

the pmate or tropical rock lobster Panulirus ornatus;

### FISHERIES MANAGEMENT ACT 1998

## THE NATIONAL LOBSTER FISHERY MANAGEMENT PLAN

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the Casaran engree Marie of Garage Colorador and a colorador of the colorador and the colorador. THE NATIONAL FISHERIES AUTHORITY, by virtue of the power conferred by Section 28 of the Fisheries Management Act 1998 and all powers it enabling, hereunder "provide the following fisheries management plan to supercede previous plan gazetted in 1998 on gazettal number G47 under the Fisheries Act 1994, to take effect on and from the date of approval by the Minister.

1. CITATIONS This Management Plan shall be cited as 'The National Lobster Fishery Management Plan' (Management Plan). with those and the continues.

### INTERPRETATION OF THE BEST SECTION OF THE SECTION O 2.

This management Plan, unless the contrary intention appears-

"Authority" means the National Fisheries Authority;

"berried female" means female lobster with eggs attached to the setae

Board, means the National Fisheries Board;

"Convention" means the United Nation Convention on the Law of the Sea of 10th December 1982 10 et an abejon est a real or or busis las est policultors

"mm" means millimetre;

on som in a case satisfies a Basilian in a series of

"minimum size limit" means the smallest size which may be captured legally;

"Minister" means the National Minister for Fisheries;

Minon citizen company means company other than owned by Papua New Guinea citizen with 100% equity;

"traditional resource owners" means families with fishermen or single fisherman who have traditionally fished for lobster in near-shore coastal waters and are recognised by their people as having traditional ownership rights to lobster namied resources within those waters.

## URACE ZSCOPEZIT JANOSTAN

The managing Plan shall-

- (a) Apply to all fishèries waters of Papua New Guinea where tropical lobsters are ્રેટ્ર harvested for commercial purposed; and Approved this
  - (b) Apply to all species of the family Palinuiridae, and Scyllaidae specifically the following;
    - the double-spined lobster Panulirus penicillatus,
    - the painted lobster Panulirus versicolor,
- 23193H217 (iii) the long legged lobster Panulirus longipes, (iv) the scalloped lobster Panulirus homarus,
  - the ornate or tropical rock lobster Panulirus ornatus;

CARRON SERVICE A

- (vi) the slipper lobster or bugs, Thenus orientalis.
  - (c) Shall cover fishing for lobster by the following methods;
    - (i) Free diving;
    - (ii) Hookah;
    - (iii) SCUBA;
    - (iv) Day or night (in the light of a torch or any other sources of light) and catching by hand, scoop net and spear.

## 4. OBJECTIVES: Over production to resident members as an element of the control o

The objective of this management plan is to-

(a) Manage the fishery so that the stock sizes move annually towards that which will give maximum sustainable yield; and

euralisation no entre um montre de la company de la comp

- (b) provide sustainable economic benefit;
- (c) promote sustainable fisheries development practices; and
  - (d) manage the fishery with a precautionary approach.

# 5. PRECAUTIONARY APPROACHES TO FISHERIES MANAGEMENT

Consistent with regional and international agreements and arrangements including the Convention's management principles, precautionary approaches of management shall apply in the management of the species specified in this management plan in the following manner:

- (a) In the absence of adequate scientific data, the National Fisheries Authority shall take into account any uncertainties with respect to the size and productivity of the stock, of the management reference 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) 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 the lobster fishery.
- (c) The precautionary approach shall be, based on the best scientific information available, including all appropriate techniques and aimed at setting stock-specific minimum standards for conservation and management.
  - (d) The recommended total allowable catch for each province specified are a precautionary measures to be based upon past records of lobster catch and precliminary biological information on the stock for the specific province or fishery.
- (e) In managing the fishery, the Authority shall consider the associated ecosystems of the social provinces or fishery. The Authority shall develop data collection and research projects to assess the impact of fishing on non-target species and

environmental factors, fixture patterns and related factors. A notice notificing of

their environment, adopt plans as necessary to ensure the conservation of non-target species and consider the protection of habitats of special concern.

### 6. MANAGEMENT MEASURES

The following management measures shall be set for each province or fishery to realise the objectives in Section 5, and shall include the following:

caption of Lancius scool net and speak

## (a). Licensing

- (i) Licences shall not be issued to non-citizen companies or individuals.
- (ii) There shall be a maximum number of exporters and buyers licences set for each province. This number shall be set by the Minister upon recommendation by the Board.
- (iii) All licences shall be endorsed by the respective provincial authorities before submission to the Board for consideration and approvals
- (iv) All licence holders however, shall have their licence automatically terminated if they breach licence conditions of breach Fisheries Regulations or breach the provisions of this Management Plan.
- (v) All lobster collected in a particular province shall be exported from that province. No product shall be moved to another province for sale without clearance from the respective Provincial Fisheries: Authorities and a second to be a province or an agreement principles, precautionary approaches or management shall be exported from that

# of the species specified in this management of the species specified in this management.

- (i) All species of spiny rock lobster with a muminim tail length of 100mm to total length of 100mm to total length of the length of 175mm shall be length of 175mm shall be length of 175mm to 1
- discussion between the eyes discussed in the base of the Carapace covery of the base of the base
- (iii) All species of spiny rock lobser with a fain memora 169 gram tail weight and 409 gram total weight shall not be parted and exported and spiny rock lobser with a fain memora and exported and exp
- noses a server of adequate scientific igamalering remailer in the lobster fish abeliand in the lobster
- d) The precautionary approach shall be, based on the best scientific information and incompared the precautionary approach shall be based on the best scientific information and some some analysis of the state of the solution of the second o
- precautionary measures to be based upon past and province specific and province or precautionary measures to be based upon past and precautionary measures to be based upon past and province or precautionary measures to be based upon past and province or province or an arrangement of the residual province or fishery.
- (e) In managing the fishery, the Authority shall consider the associated ecosystems (e) In managing the fishery, the Authority shall consider the associated ecosystems and no besed kneptaling poritional safety is a shall be shal

the TAC for each fishery will be published in the National Gazette by the Minister was an upon the recommendation of the Authority. India national garagement with the published in the National Gazette by the Minister of the published in the National Gazette by the Minister of the National Gazette by the National Gaze

(g). Closed Season and Closed Areas

Whenever required closed season and closed areas shall be set by the Minister

winon the recommendation by the Authority in the limit and or beat indus

(h). Market Standards

Marketing standards shall be based on the standards established by the relevant authorities and marketing requirement.

Endorsed this It day of plante 1999.

# 7. MONITORING

Provision of fisheries data

- (i) In accordance with the Act, licensed buyers shall submit data on catch and effort, as well as marketing data, for the purpose of this management plan.
  - (ii) Licensed lobster buyers shall be required to keep receipts for lobster (number of individuals and their total weight) and the area where the lobsters were caught, number of fishermen, date of receipt and price paid.
  - (iii) Licensed lobster buyer shall send the completed receipt books and sales report to the Information Registry of the National Fishenes Authority on a monthly basis.

(N) The Adthority and the Provincial Fisheries Divisions shall work towards the estimation of the sustainable harvest in each province or fishery.

## 8. RESEARCH PLAN

There shall be a research plan with research programmes jointly developed with provinces to monitor lobster fisheries and to make recommendations for any relevant changes for improvement of this Management Plan.

## 9. SPECIAL CONSIDERATION FOR TRADITIONAL RESOURCE OWNERS

- (i) Special consideration shall be given to the traditional resource owners in order to avoid adverse impact on traditional and small-scale fisheries. Where possible, traditional management measures shall be documented and submitted to the Authority for gazettal by the Minister after consultation with the traditional resource owners and the Provincial Government.
- (ii) Where possible, effort shall be made to document and promote traditional management measures, in order to enhance the conservation and management practices of the fisheries resources within the traditional waters and reef areas.
- (iii) Development and documentation of traditional management measures shall be consistent with the management plan.

- (i) This management plan shall be kept under review by the Authority as new information is obtained so as to meet its objectives.
- (ii) Any amendment to this management plan shall be endorsed by the board; submitted to the Minister for approval and notified in the National Gazette.

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There shall be a research plan with research programmes foliativ developed with provinces to monitor lobster fisherius and to make reconcremilations for any relevant changes for improvement of this Management Flag.

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- (i) Special consideration shall be given to be great local resource owners in the enspecial adverse impact on traditional area laper ace a material where possible, tradition manageny is vienticed by the property alors submitted to sign Authority for gazettal by the which sider consultation with the traditional resource owners, and the Provincel Coverament
- (TT Where possible, effort, shall he made to excurrent and promote equitional. management, measures... in order the contance the conservations and management practices at the distortes resources within the traditional-waters and the areas. Englishmen street to the common to be a series
- (iii) Development and documentation of traditional management measures shall be consistent with the management plan.

# FISHERIES MANAGEMENT ACT 1998

# WESTERN PROVINCE AND PNG TORRES STRAIT PROTECTED ZONE BECHE-DE-MER FISHERY MANAGEMENT PLAN

the permits will be lead by Matchell Pales. The later of these or these ordered

THE NATIONAL FISHERIES AUTHORITY, by virtue of the powers conferred by Section 28 of the Fisheries Management Act 1998, and all other powers it enabling, hereunder provides the following Fisheries Management Plan to supercede pervious plans on Gazettal G1 in 1996 under Fisheries Act 1994, to take effect on and from the date approved by the Minister.

(IV) Comency regulacions is oning the case in lease year or throughout PNG will

# continue to gony in the Tabory area as per 6 sturied Statetto No.671 or 3<sup>th</sup> August 1895. The directies and concess and replay the p**ROTATES** of

-ab-arthod sin or leadern and reduced flower and colored above to a This plan shall be cited as the Western Province and PNG Torres Strait Protection Zone Beche-de-mer Fishery Management Plan 1995 (the Fishery plan).

2-11 THE WESTERN PROVINCE AND PNG TORRES STRAIT PROTECTED ZONE

DEDOS BECHET DE-MER FISHERY MANAGEMENT AREA (1) 1 1894 DOTAGE AND PNG TORRES STRAIT PROTECTED ZONE

The Western Province and PNG Torres Strait Protected Zone Area comprises all

that area of waters in the Western Province and the waters of the Papua New Guinea jurisdiction of the Torres Strait Protected (the Fishery Area).

- (ii) The open season for fishing would be thing the wet season of the coastal mainland in essociation with the secondard participant for established in the fisher, secondard praft in the fisher in this plan, established in this plan,
- (a) Maximise and maintain economic return to the traditional users of reefs in Western Province and the PNG purisdiction of the Torres Strait Protected Zone; (i) A total allowable in Torce shall be deteriorable in the properties of quadrat methods. The methods used will not have a percision of the estimate more than 20°C shall be precision of the estimate more than 20°C spansand.

The following measures are to take effect immediately.

(ii) The initial TAC is set at 30 tonner for sandfish (holothuria scabra) and 10 tonnes for other species present on the reef lithamagnama prizagenes for other species present on the reef lithamagnama prizagenes.

(i) A licensing system for the purchase of sedentary resources, which include beche-de-mer and trochus, shall be forced. The number of licences is sued beche-de-mer and trochus, shall be forced. The number of licences is sued beche-de-mer and republiced as required; Alwards in the size of this end of the substitution of the

- (ii) Processing and buying of beche-de-mer should be based in the village specified under the Torres Strait Treaty Area.
- -30 -(iii) To limit and control the effort, a numbering system for dinghies and cange fishing for beche-de-mer will be established to the many ways are research with the established to the many ways are research.

The permits will be issued by National Fisheries Authority base on these criteria;

yd center (a) Dinghies and canoes are 100% owned by Western Province citizens of pullband is supplied the Torres Strait Treaty Area (TSPZ) of adjacent areas; end to 80 no coest and cook (b) Dinghies measure not more than 8m in length, old and the letter of the cook of traditional design.

(iv) Currently regulations banning the use of large vessels throughout PNG will continue to apply in the Fishery Area as per National Gazette No.G71 of 3<sup>rd</sup> August, 1995. The dinghies and canoes shall display the permit humber on both sides while fishing. The permit number shall be reported to the beche-denoised when selling the catch. Indicate and as being a light and a side with the catch and shall be reported to the beche-denoised when selling the catch. Indicate the permit number and a side with a side of the catch. Indicate the permit number and a side of the catch and shall be reported to the beche-denoised with a side of the catch. Indicate the catch and shall be reported to the beche-denoised with a side of the catch.

d) Closed and Open Season north in the February Properties of the Season of the Province and the Waters of the Western Province and the waters of the Toures Strait Province and the waters of the Toures Strait Protected (the Fishery Area).

- (ii) The open season for fishing would be during the wet season of the coastal mainland in association with the southeast trade white (Ministernamental) from April to October. The fishery becomes closed as soon as the Total Allowable Catch is harvested as specified in this plan.
- (a) Maximise and maintain economic return to the traditional users of reefs in Western Province and the PNG jurisdiction (2) The constant electrone;

  - (ii) The initial TAC is set at 30 tonnes for sandfish (Holothuria scabra) and 10 tonnes for other species present on the reef flat within the management area
- (i) A licensing system for the purchase of sedentary resources, which include beche-de-mer and trochus, shall be forced. The numberimi-jezices(h) sued stimil esis giuminim bestochus, shall be forced. The numberimi-jezices(h) sued stimil esis giuminim bestochus, shall be forced. The numberimi-jezices(h) cilities etimil esis giuminim bestochus, shall esis giuminim edit shall be forced. The numberiminim edit cilities etimil esis muminim edit sedentary shall be forced. The number end sed end to the stimil esis muminim edit sedentary sedentary edit shall be sh

ni beribuoteneeds earl bragogranoitatee inthine in intereste en intere Daru. This information will be submitted quartinemnoriveals utenestich Office Dary for entry into the database to be maintained by the office.

ent (iii) The minimum size limits will be observed by the fishermen positive and beyong as a satisfied stress of the little o as a semeasuring instrument in the result of the second permit in the se exporters will be responsible for buying sizes in within a value galesize limit. Deliberate buying of under size product may result in the termination of the license. Economic Monitoring.

To maintain the profitability of licensed buyer, the buyer shall submit to the abas(iii) Specified minimum sizes for Western Province will papply ras soom as more month a summary of costs for that qualdaliave at notemonal land

**Quality Control** (e)

GEAR RESTRICTION

- (i) Quality standard and control will be maintained by the fishermen and exporters. To maintain high quality product the processing method will be as ni vistnebutlinednimistheqbookletetitledni vBeche-de-meni Processing/randi:Marketing in edi ni b Papua New வெர்க்கழ் by Lokani and Kubohojam (vindated) - Exporters shall be gnissasorq/aenthenosaaemantkiiiGenthenosaaeman enistivbergha enistasube sofueldishoqkent, use of not beau method for achieving other highest quality state processing methods will be exploitation of became-de-magazine de-magazine Bevolumi band became Strait. Protested Zone Management Area.
- (ii) Quality grading/will involve a simple criteria based on appearance, odour and iser and moistures. The appearance of the dried product will chaintain the chatural shape besuper of the liverspecimen as much possible, as continue in schedule 31 The odour of the final dried product will be a fresh fishy with polodour associated with the decomposition. Product ready for export will be dried with about 90% of the moisture lost through boiling and drying. The quality standard will anclude as grading criteria base on species and size as outlined in table 1.

(ii) a can its and be revoke for Layers and magnetic who knowingly buying beche d.-mor from fishermen whom ideasity itshing from the Australia Jurisdict**pold6T** Grading of dried products ready for export based on Species and size, seek and trackly entitled to the species and size, seek and trackly entitled to the species and size, seek and trackly entitled to the species and size, seek and trackly entitled to the species and size, seek and trackly entitled to the species and size, seek and trackly entitled to the species and size, seek and trackly entitled to the species and size, seek and trackly entitled to the species and size, seek and trackly entitled to the species and trackly ent

Species	Grade	Size	Remarks
Sandfish Holtoi	Austr <b>equa</b> juneo	15,2cm	germant pieces/kg
prosecuted	n are sudessfully	12.7cm 10.2cm	ocman <b>6 pieces/kg</b> 54 5d li <b>i spieces/kg</b> 54 5d lii spieces/kg
SHOUSUA 10 :	ungewu <b>l</b> kumich de	7.6cm	Unite SWE 30pieces/kg 1910.00
			and Q <b>eXXessaiqrOE</b> s State L
White &Black tea	trìsh A	22.9cm	
	A	17.8cm	

Fishery Monitoring

TECHNICAL ADVISORY COMMITTEE

(i) Exporters buying direct from the fisherman will maintain records in a semi-plant of the later of the late of legisling and the legislication of the officer in-Charge of Fisheries Research Daru for entry into the database to be maintained by Fisheries Research Office. The information will be used to monitor the fishery. Faisifying information may result in prosecution.

ni be(ii) Records and exports will be intaintained only sthe! Fisheries of his pection office in Daru. This information will be submitted quarterly too the Dio Research Office Daru for entry into the database to be maintained by the office.

ent (iii) illustration of the state of the s

(g) Economic Monitoring.

To maintain the profitability of licensed buyer, the buyer shall submit to the sport as OfficersIn-Charge of Fisheries Research in Dark at the nend bological projects for that members is notionally information is a validation of costs for that members is notionally information.

## 5. GEAR RESTRICTION

(e) Quality Control

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- as ad (ii) The exploitation of the benishiem of the last shall bendy the political of the bendy three divines. This is a state of the political of the property of the political of

(ii) Quality grading will involve a simple criteria based on appearance, odour and new printers and nongrished three participations and participated properties and properties and the simal dried product ready for expert will be dried with about 90% of the decomposition. Product ready for expert will be dried with about 90% of the

# moisture (est through boiling and drying. ThYTABAT TIARTEISBAROTICE ab grading criteria base on species and size as outlined in table 1.

- (a) Licences will be revoke for buyers and exporters who knowingly buying bechede-mer from fishermen whom illegally fishing from the Australia Jurisdiction of the Warrior Reefees and selected the Wa
- (b) Permits from fishermen illegally fishing on the Australian jurisdiction of the Warrior Reef will be revoked if the fishermen are successfully prosecuted under the RNG laws and also under the relevant Commonwealth of Australia and Queensland's State Laws.

White &Black teatfish A 22.9cm A 17.8cm

## 7. TECHNICAL ADVISORY COMMITTEE

(f) Fishery Monitoring

(i) Exporters buying direct from the fisherned will be springed by the fisherned will be springed by the fisherned by the fisherned by the fisherned by the fisher springed by the fisher springed by the fisher by the

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- (b) The function of the committee will be to advise the Senior Management Committee (SMC) of the National Fisheries Authority (NFA) on the management and development matters of the fishery and on updating the management plan. Its task shall be to meet biannually and report to the SMC of the NFA its recommendations. Except in an emergency, the Committee may meet to deliberate on the situation at hand.
- (c) The Committee shall comprise the following
  - a representative of the Torres Strait Resources owners (Chairman).

the Provincial Fisheries Officer for Western Province, (ii)

ve (iii) withe Assistant Secretary for Department of Primary Industry? January and But Section 25 of the Fisheries Managementsphility its more management will be section 25 of the Fisheries Managements will be section. draws up the following fisheries management plan :evitatnesengenemanteha (h.(v) ate (vi) a exporters representative, of approval by the Minister.

(vii) the OIC for Inspection and Surveillance in Daru and,

(viii) the OIC for Fisheries Research and Management in Darū. MOTTATIO

(d) The secretary duties of the committee will be carried out by the National Fisheries Authority through its office imparagement Plan' (Management Plana)

(e) The technical Committee and any other Committee involved such as the Integrated Coastal Fisheries Management Committee by SPC shall report to and the Senior Management Committee of the National Fisheres Authoritys of (1) Bay Province ("the management area"); and

(2); to all species of the beche-de-mer of the honus Holothuria, Thelenoia, Actinopyga approbadas Actinopyga Actinopyga of **Endorsed this** 

Vac. unless the contrary intention applies;

'Authority' means the National Fisheries Authority;

means the National Fisheries Board:

brace seried in the class Holothuroides which are beche-de-men means all species of the class Holothuroides which are processed through boiling, sun drying or smoke drying and are sold in the open market as a food product;

"Convention" means the United Nation Convention on [1] Law of the Saa of 10" Decemb# 1992**pep1** Approved this

"Management Working Group" means the Provincial Fisheries Management Working Graup appointed under Section 8:

Maximum systainable yield" means the highest possible catch of beche-de-mer hay be laren from the management area with minimum effect on the ability. of Rond Gantinux to replenish itself.

.cetradaily of ostical boundary in geographical area within the political boundary of Milne Bay Province as defined by law:

"Minister" means the National Minister for Fisheries;

"Sea cucumber" means all species in the class Holothuroidea.

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# FISHERIES MANAGEMENT ACT 1998

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# MILNE BAY PROVINCE BECHE-DE-MER MANAGEMENT

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(1) the Propincial Reliefled Offices for Western Province.

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THE NATIONAL FISHERIES AUTHORITY; by virtue of the power conferred by Section 28 of the *Fisheries Management Act* 1998 and all powers it enabling hereby draws up the following fisheries management plan to take effect on and from the date of approval by the Minister. के स्प्रतिकारिक्षण (कार्याक्रक्रण वैज्ञानिक "Val) the OIC for incoercion also Runsellance in Daris and,

### 1. **CITATION**

\*This Management Plan shall be veited as Milne Bay Province Beche-de-mer. Fishery Management Plan' (Management Plan): A Separate of the Management Plan's A separate of the Mana

### 2. SCOPE

This Management Plan, applies On the committee of the control of t Bay Province ("the management area"); and

(2). to all species of the beche-de-mer of the genus Holothuria, Thelenota, Actinopyga and Bohadaschia Endorsed this

### 3. INTERPRETATION

This Management Plan, unless the contrary intention applies;

"Authority" means the National Fisheries Authority;

"Board" means the National Fisheries Board;

based aging right is noited and species of the class Holothuroidea which are processed through boiling, sun drying or smoke drying and are sold in the open market as a food product;

"Convention" means the United Nation Convention on the Law of the Sea of 10th December 1992 Approved this

"Management Working Group" means the Provincial Fisheries Management Working Group appointed under Section 8:

"Maximum systainable yield" means the highest possible catch of beche-de-mer that may be taken from the management area with minimum effect on the ability afithe stock to continue to replenish itself.

Mine Bay Province Imeans the geographical area within the political boundary of Milne Bay Province as defined by law;

"Minister" means the National Minister for Fisheries;

"Sea cucumber" means all species in the class Holothuroidea. 

"Total Allowable Catch (TAC)"means the set amount of catch that is allowed to be taken out of the fishery in any one-year or season. The TAC is set at a safe level based on the average annual production or on stock assessment work.

means methods for conservation of "Traditional Management Practices" marine and coastal resources practiced by traditional ingenious of the Milne Bay Province, that have been passed down from generations to generations and which are not usually formally recorded. (ก.). ร.ศ กิดยะโทย-กายา แปะยาคิด กิดกา Miline Bay โทยพิเด**ร์เทริโทว์สโซเด**ร์การ

The objective of this Management Plan is:

- (1). Manage the beche-de-mer fishery in the Management Area 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
- (2). Safeguard the beche-de-mer fishery in the Management Area as a source of income for resources owners and for the people in the Milne Bay Province; ally the treatific handling of sedentary resource
  - (3). Promote good fisheries management practices in the Province and to promote the beche de mer fishery as sustainable fishery; and
  - (4). To encourage in the Management Area, where appropriate, self regulation in the fishery through sustainable traditional management practices; and
  - (5) Apply the precautionary tapproached in the management of the fishery in the echinoles, quality control, bedishde-mer. **serk-tnemeganaM**er

### PRECAUTIONARY APPROACH TO BECHE-DE-MER MANAGEMENT 5.

Consistent with international agreements and arrangements including the Convention's management principles, precautionary approaches of management shall apply in the management of the species specified in this Management Plan in the following manner:

- 4 (4) The the absence of adequate scientific data, the Authority shall take into account the uncertainties with respect to the size and productivity of the stock, to other management reference 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, ceanic, environinantal and socio-economic conditions.
- (2). In managing the beche-de-mer fishery, the Authority shall consider the associated ecosystems on reefs within the Management Area. The Authority 10 20 12 Voshall 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 last amount lieds as
- to make measures to protect the target and nonstarget species in the Milne Bay Province beche de mer fishery
- co 25 (4). The precautionary approached shall be based on the best scientific information available likeluding all appropriate techniques and be aimed at setting stock specific minimum standards for conservation and management.

at as (5) le The Authority shall time collaborations with relevant persons and organisations siss is in the Arovince, development systems to collect data tand to indertake showresearch into conservation con the stock and the protection of habitates!

means traineds for conservation "Tradibusal Managament Practices" 16 an MANAGEMENT MEASURES VC bandong and some of the office Province, that have been passed down from generations to denotations and which any notrusually formally recorded.

(a). All beche-de-mer collected from Milne Bay Province shall be exported from Milne Bay Province. No product shall be moved to another province for sale without clearance from the Provincial Fisheries

(1). Manage the Deune-de-mer fishery in the Managemen**ythodbuA** that the size of of the (CR). Exporting and buying are restricted activities. The issuing of licences shall be carried out with due consideration of the Milne Bay Provincial

(2). Safequard the beche-de-mer fishery in the Manadasminishood as a source of

(SOCIONAL VER PERMANELLE CONTROL STORAGE LICENSES and BUYERS licenses shall be issued only for the specific handling of sedentary resources.

of directions of the paying of being and shall be endorsed for the buying of beche-de-mer throughout Milne Bay Province with due regard to the resources owners.

ni noisiunge i All application in buyers incences shall be require to complete compulsory certified training sanctioned by the Authority. The content of base sérubaggia princessorquismes de la composição de la techniques, quality control, beche-de-mer. disheny management, basic THEM bechette mer biology and beche de monaraketing The licencee shall

and philodologic carry out extension services in the province to ensure quality products neil framedene de la contra del la contra del la contra de la contra de la contra de la contra de la contra del la contra de la contra de la contra del la contra de la contra del contra del la contra del l of the first state of the configuration of the conf exporters. the following manner:

6 of beginning the sentence of account the uncertainties with respect to the size araleyuductivity of the syld visited of the paragraph of the policy of the person are licence and land of the person are licence of licence of licence of the policy of the licence of the policy of the licence of the policy of the licence of

.lsvorqqs rol brood and or noisemdus. (2). In managing the beche-de-mer rishery, the Authority shall consider the i betanimmes collegite a constitute and the constit To topomic and atheresting and alternoon conditions. Fishering Regulations and appropriate of fishing on non-target species and mela termanement dopt plans as and replicated the representation of a serious year shall automatically 1836 their life he side in a city story

nozest 6 201) sakesdurced whees may spipily for a buyers heerce to buy setche de-mer mon bna team far the team to the team of t buyers shall be determined after consultation with the resource owners.

seinmine bead Biological and economics factors may be considered if the need arises to inform asinchand leaoitibert at an ensylchaned mun addimited be aimed at setting stock specific minimum standards for conservationaring sergers ment.

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- (a). For the purpose of this Management Plan, the new size restrictions for the Milne Bay Province are listed in Schedule 1.
- (b). Purchase and handling of undersized products shall result in the automatic termination of the buyers licence, the exporters licence, and fish storage licence upon successful prosecution.

# (3) Gear Restrictions

- The use of underwater breathing apparatus are banned from being used for the purpose of fishing for any beche-de-mer species for the purpose of processing into beche-de-mer in the waters around Milne Bay Province.
- so (b). The use of underwater lights or surface lights in the night for the purpose of fishing for beche-de-mer species is banned in the Milne Bay Province. isadijonal manaddenem seets waten laakure dlosed af

# (4) Total Allowable Catch (TAC) is published as a construction bas

- (a). A Total Allowable catch shall be enforced for the whole of the Milne Bay Province. The TAC shall be set at 60 tonnes per year.
- (b), Fishing will cease as soon as the TAC for the year is reached and recommence 1st January the following years assess assess

# (5) Open and Closed Season

All harvesting buying, selling and storage of beche-de-mer shall cease at the beginning of the closed period declared or after the TAC for the year is reached. A combulsory closure will occur in each year from 1st October to 31st December in each year to protect spawning of some of the most common high value species. No product shall be kept in storage after one (1) vilage as a some perman serve entage of the closure. species, grads, weight and price. Where possible the hours or day.

# (6) Marketing

- fishing for the products being sold will be recorded. more spall be exported from Milne, Bay, Province shall be exported from Mile Bay Province. Companies who fail to export from the Province shall automatically lose their Export Licence.
- (b). To imaintain the stest quality rall products, will be properly boiled and and Kubohojam (undated, Beche-de-mer processing and marketing in Papua New Guinea). These documents are available at the National (2) The role of the some control and the sound of the role of the sound control (1)
- (c). All products packed for export will be graded by species, size and quality. Schedule 2 provides the standard common trade mames to be exism of brusedrand sizes. Schedule 3 provides a guideline on the quality based on appropriate recommendations to Boarnstage ratew bns ruobo
  - (d): All products will be packed in standard weights of 40 kg using poly bags or copra bags. The bags will be labeled with the following standard labels, Product of Papua New Guinea, Name of Exporter, Species Name and Grade. Where the products are shipped by

1.00

air a poly bag should be used and where the product is shipped by sea a copra bag should be used, in order to maintain quality.

(e). All products bought from the fishermen will be graded using the matters specified in *Schedule 2* and *3*.

# (7) Traditional Management Measures

- (a). Traditional management measures currently existing throughout Milne Bay Province are recognised and will be considered for incorporation into Beche-de-mer Management plan by the Beche-de-mer Management Working Group. The Board may request for a study on the Traditional Management System being used in a specific area. The Board may publish the document in the National Gazette as the official record of Traditional Management System for the specified area.
  - (b). Traditional management areas which feature closed and open season and closed area may be submitted to the Beche-de-mer Management Working Group for screening and incorporation as a component of Beche-de-mer Fishery Management for the specified area.
- (c). 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.

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# 7. MONITORING

(1) Receipt-Book Data System

(a). All beche-de-mer bought from the fishermen shall be recorded in a triplicate receipt form. These shall include the name of the fishermen, village of the fishermen, if he was fishing within the vicinity of the village or the fishing area if he was fishing outside of his village, species, grade, weight and price. Where possible the hours or days fishing for the products being sold will be recorded.

The duplicate copy of the invoice/receipt shall be sent to: the Fisheries Office at Alotua for entry into a computer database once every month.

# 8. FISHERIES MANAGEMENT CONSULTATIVE WORKING GROUP

- (1) In order to better facilitate efficient management of the fishery, a fisheries consultative management-working group may be appointed by the Authority in the Province.
  - (2) The role of the management working group appointed under Subsection (1)
- All products pycked for export will be graded by species, 1786 and quality, so big.; and Ingreson All propressions of the content of the cont
- no beach all licence applications from within the Province and to make appropriate recommendations to Boardy and reasy but nucleo
- pais ; sonivollo: and the labeled with the province; and coorse bags with the coorse bags with the coorse bags with the labeled with the collowing standard or coorse bags with the collowing standard labeled; see bags with the collowing standard labeled; see bags with the collowing standard labeled; labeled to company the collowing standard labeled to collow the collow the collowing standard labeled to collow the collowing standard labeled to collow the collow the collowing standard labeled to collow the coll

Expendit, Species Name and Grade. Where the products are chipped by

(3) The Fisheries Consultative Management Working Group shall comprise;

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- an officer of the Department of Milne Bay Province responsible for Fisheries matters of at least assistant secretary level who will be the chairman,
- (b) a representative from the exporters/buyers,
- (c) a representative from the resource owners in the Province.
- (d) the local Senior Fisheries Officer responsible for the Southern Region,
  - the Provincial Fisheries Officer and,
  - a representative from the Department of Environment and Conservation stationed in the province.
  - (4) The Provincial Fisheries Management Working Group shall meet twice a year on February and October of each year. The chairman of the Working Group may convene an emergency meeting if there is a need to discuss any urgent agenda.
  - (5) The Milne Bay Provincial Fisheries Office shall carry out the secretarial duties of the working group.

### **RESEARCH PLAN** 9.

There shall be a research plan with research programmes jointly developed with the Milne Bay Provincial Government to monitor the fishery and carry out stock raffue) Abali assessment.

### **AMENDMENTS** 10.

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- (1) This management plan shall be kept under review by the Authority as new information is obtained as to meet its objectives.
- (2) Any amendment to this Management Plan shall be endorse by the Board; and submitted to the Minister for approval and notified in the National Gazette. 3 O.5 Actionapyga outilist

Minimum Size Restrictions in Live Length and Dry Length for Milne Bay Province

Common name	Scientific name	Live (cm)	Dry (cm) dailywo
Sandfish	Holothuria scabra	22	10 (lait (30.)
Black teatfish	Holothuria nobilis	22	11 គឺជានេទូកើ
White teatfish	ે ટાઇઝક કોલેડરોન્સ Holothuria fuscogilva	34	17 nzimojii
1 ollyfish	্ Holothuria atra	15	- <b>8</b> वश्चे कर्ततार्थ
en 80-01 Elephant's trunk fish	Holothuria fuscopuntata	<del>3</del> ∜: 24	12 Produit
Prickly redfish	্রান্ত হাত্র হ Thelenota ananas	25	12 ************************************
∆mherfish	Thelenota anax	<sup>∖∈ ∖</sup> + <b>25</b>	12 activity.i.
Rlackfish	້ານ ກາຍາດເກາຣາກ ຄຳດັນພະດີ <b>Actinopyga miliaris</b>	15	ৰুমি ভাগ বাদকাই। <b>৪</b>
mo 3.2-4 9 Deepwater redfish	Actinopyga echinites	16	Supple section 18
Stonefish	ะ รางการเกาะเลือนที่ รางการเกาะ Actinopyga lecanora	1 <b>5</b>	7.65 1.8 (1.8 (1.8 (1.5 (1.5 (1.5 (1.5 (1.5 (1.5 (1.5 (1.5
ਸ਼ਹਿਤੀ ਜ਼ਰੂ Curryfish	Stichopus variegatus	લર્કક 	in the second

Greenfish	Stichopus chloronotus 20	•:	g
Brown sandfish	Bohadschia marmorata 23	٠.	11

## **SCHEDULE 2**

Common trade names corresponding to the scientific name and the grading sizes to be used at Milne Bay Province.

Products with a lower quality should be downgraded to the next grade down.

Common name	Scientific name Scientific	Grade	Size
Sandfish	Hôlothuria scabra	SUPER	>14 cm
Sandfish		L1 11 11 11 11 11 11 11 11 11 11 11 11 1	` 11-13 cm
Sandfish	Holothuria scabra	M1	9-10 cm
Sandfish	Holothuria scabra	<b>S1</b>	8-9 cm
White teatfish	Holothuria fuscogilva	<b>L1</b>	>20 cm
White teatfish	Holothuria fuscogilva	M1	18-20 cm
White teatfish	Holothuria fuscogilva	S1	17-18 cm
Black teatfish	Holothuria nobilis Barris Collecti of Jasman	LÎ	>16
Black teatfish	Holothuria nobilis	M1	16 cm
Black teatfish	Holothuria nobilis	<b>S1</b>	11-15 cm
Prickly redfish	<b>Thelenota ananas</b> zweivo <u>n</u> naporiu zgastao iroda s	<b>L1</b>	>16 cm
Prickly redfish	Thelenota ananas	S1	11-16 cm
iurf redfish For Succession vo 62 (China)	<b>sneidiruem apyqonitoA</b> Santagement Plan Shail be	L1 o ( or do so my	>10 cm
Burfredfish isaobski adami	Actinopyga mauritiana	<b>\$1</b>	8-10 cm
Blackfish	Actinopyga miliaris	L1	>10 cm
Blackfish	Actinopyga miliaris	S1.	8-10 cm
Greenfish	Stichopus variegatus	L1	>15 cm
	101 Stichopus variegatus	iù <mark>S1</mark> Iù ill anobar	8-10 cm
Curryfish (ma) you (m	Stichopus variegatus O) evil enancimente		->15 cm
Curryfish	Stichopus variegatus	<b>-S1</b>	
Tigerfish	<b>Bohadschia argus</b> St. Bilidon streit oh	<b>L1</b>	>16 cm
igenfish (Septiment)	୍ବର <b>Bohadschia argus</b> ନିର୍ଣ୍ଣ <b>Bohadschia argus</b> କର୍ଯ୍ୟ କ୍ରେମ୍ବର	S1	11-15 cm >16 cm
mberfish	Thelenota añax	L1	
Amberfish	Thelenota anax	S1	12-16 cm
ollyfish £1	Holothuria atra ਵੇਹ ਤਰਜ਼ਗਰ ਤਹਿਸਤੀਤ	L1 (T	ncis crunk fish ma <b>71</b> < reafish
ollyfish <u>SI</u>	Holothuria atra	S1.	12-17 cm
Brown sandfish	Bohadschia marmorata	L1	>16 cm
Brown sandfişh	Stinopyga echinites	S1	11-19 cm ·
Elephant's Trunk fish	tinopyga lecanora	L1	ater redainsh ************************************
lephant's Trunk fish	Holothuria fuscopunctata	S1	8-15 cm

## SCHEDULE 3

Guide for determining quality based on appearance, odour, moisture and stage of spoilage.

Appearance: A smooth and natural surface should be the normal shape of a good quality product. An uneven shrunken product will result in the product being down graded to a lower grade.

Odour: A pleasing 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 ten to thirty percent is considered good quality. A soft product requires further drying otherwise the product should be rejected

Spoilage: All products in the high grades, which are spoiled or do not have the natural shape, shall be down graded to a lower grade. Any product that has any chemical spoilage will be rejected.

Endorsed this 21th

day of September

三秦子 1965年,北平安徽的北台 发展的 人名兰克姆

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<sub>Seter</sub> ∦ or <sub>Colonial</sub> or Se**Chairman** 

**NATIONAL FISHERIES BOARD** 

Approved this XY Company di

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MINISTER FOR FISHERIES

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# FISHERIES MANAGEMENT ACT 1998

# THE GULF OF PAPUA PRAWN FISHERY MANAGEMENT PLANTAGES

THE NATIONAL FISHERIES AUTHORITY, by virtue of the powers conferred by Section 28 of the Fisheries Management Act 1998, and all other powers it enabling, hereby draws up the following Fisheries Management Plan to supercede the pervious plan gazetted on 2<sup>nd</sup> January 1997, gazette NO. G1, under Fisheries Act 1994 and take effect on and from the date approved by the Minister.

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## 1. CITATIONS

The Management Plan shall be cited as The Gulf of Papua Prawh Fishery Sold of Management Plan (the Fishery Plan).

## 2. INTERPRETATION

This Management Plan, unless the contrary intention applies;

Commence of the state of the state of the commence of the commence of the state of

" Fishery Management Area means the specified area to which the fishery plan relates.

for the first time by offshore migration from estuarine nursery areas are taken at an early stage before they have had sufficient time to growth and increase in volume to full market price.

than dories and dinghies, where vessels operates twin or quad rigged otter trawl gear.

"Juvenile Recruitment" means the offshore migration of juvenile prawns from estuarine nursery area (mangroves and sea grass) into the trawl (fishing) grounds, where they are liable to industry harvest for the first time.

"Small-scale Fishery" refers to the small-scale prawn trawling operation employing dories and dinghies, which tow a beam trawl. This shall be the type of operation to be allowed within the three-mile zone.

"Three-mile Zone" refers to the sea area, which extends from the mean high water mark seaward by three nautical miles (as per the National Seas Act). Industrial trawling is prohibited within three-mile zone.

"Three mile limit" is the seaward boundary of the three-mile zone and extends from Parama Island to the border of the Gulf and Central Provinces.

"Timed Area Closure" means that a specified area is closed to fishing for a specific time.

"Traditional Resource Owners" means families with fishermen or single fishermen who have fished for both prawn and fin fish in near shore coastal waters and are recognised by their people as having traditional ownership rights to the coastal prawn and fin fish resources.

# 3. SCOPE OF THE FISHERY PLAN

- (a) This geographical area covered in this fishery Management Plan is the sea area that is bounded as follows:
  - (i) The northern boundary is the coastline to Papua New Guinea from Parama Island (at the southern limit of the estuary of Fly River) to the border of Central and Gulf Provinces.
  - (ii) The southern boundary is the 9 degree of latitude line, which passes through Parama Island in the west and meets the border of Central and Gulf Provinces in the east.
  - (iii) The eastern boundary is the boarder of Central and Gulf Provinces.
- (b) This fishery plan shall cover all species of the Family Panaeidae including: the principle species white banana prawn (*Panaeus merguiensis*); the Indian banana prawn (*Panaeus indicus*); the (giant) black tiger prawn (*Panaeus monodon*); the brown tiger prawn (*Panaeus semisulcatus*); and including the lesser value endeavour species, Metapanaeus spp.
- (c) The fishery plan covers the method of single vessel otter trawl fishing and the method of beam-trawl by dory or dinghy. Other methods are prohibited unless approved by the National Fisheries Board.

# 4. OBJECTIVE OF THIS FISHERIES PLAN

The broad objective of this fishery Management Plan is to reinforce and give effect to the fisheries management principle in the *Fisheries Management Act 1998*, and specifically:

- (a). To manage the Prawn fishery in the management area so that the size of the stock tends towards that will give the maximum sustainable yield (MSY), chiefly through control of fishing effort;
- (b). Provision of sustainable economic benefit through prevention of growth overfishing on the principle species, the banana and tiger, in order to maximise economic returns;
- (c). Conservation of stocks of dermersal fish species caught as by-catch;
- (d). Promotion of sustainable fisheries development practices;
- (e). Development of controlled sustainable small-scale fishery development of the prawn and associated fin-fish resources within selected areas of the three mile zone, for the participation and benefit of the traditional resources owners; and
- (f). To manage the fishery with a precautionary approach.

# 5. PRECAUTIONARY APPROACH TO PRAWN MANAGEMENT

Consistent with the regional and international management principles, precautionary approaches shall apply for Gulf of Papua Prawn Fishery in accordance with the following provisions:

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(a). In the absence of adequate scientific data, the National Fisheries Authority has taken into account the uncertainties with respect to the size and productivity of the stock, to other management reference points such as

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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 Prawn fishery, the Authority has considered the associated ecosystems on reefs within the Management Area. The Authority may 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. ARREST AND STATE OF THE STATE OF
- (c). The absence of adequate scientific information shall not be used as a reason for postponing or failing to make measures to protect the target and nontarget species in the Gulf of Papua Prawn fishery.
- (d). The precautionary approach taken in controlling of fishing effort including the recommendation to maintain the number of vessel at 15.

### MANAGEMENT MEASURES 6.

The following management measures, which are to realise the objectives in Section 4, are to take effect immediately: . सम्बादक (१) स्थान १ वर्ष के अन्य स्थान के स्वाद के स्थान के स्वाद के स्थान के स्वाद के स्थान के स्वाद के स्थान

# (a) Licensing

- The number of licences for the industrial fishery shall be maintained at 15 (i) (fifteen). THE STATE OF THE PROPERTY OF THE PROPERTY OF THE STATE OF
- Preference shall be given to licence applications from resources owners for new licences. Non-citizen companies shall not be granted licences.
- (iii) Prawn trawlers of the PNG Torres Strait fishery based out of Daru, Western Province, may be endorsed to operate in the Fly/Bamu fishing zone. Specifications for these vessels shall be in accordance with the PNG Torres Strait Prawn Fishery Plan.
- (iv) Licence shall be required for any dory or dinghy operating a beam trawl in the shore small-scale fishery. National Fisheries Board may approve specification for such vessel and specific area of operation.
  - There shall be a maximum of 10 (ten) licences for small-scale commercial dories or dinghies fishing by beam trawl operating in the inshore small-scale ula della compressione della distribia sidella e e e la maccana e e (e) fishery.

- (b) Fishing Restrictions o.(i): The geargestrictions for the industrial fishery shall be as follows; we see
  - A. The taking of penaled prawn is prohibited at all times by the National Regulations on Control of Prawn Fishing in Papua New Guinea (National gazette NO. G41 27th Aprils1996) Aprils 1996) Aprils 1996) Aprils 1996) Aprils 1996) Aprils 1996) Aprils 1996)
    - by boats owned by non-citizen companies;
    - by foreign registered vessels: 33 OT HOAD \$434 YEAROTTUACE \$9

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- by boats exceeding 30 meters overall length (LOA) according to Papua New Guinea registered survey length;
- by boats with main engines with shaft power exceeding 410 kilowatts or 550 horse power, as set out in the manufacturer's specifications;

by method of more than 4 (four) main nets and 1 (one) try net towed at the same time:

- by a method whereby the aggregate head rope (with mesh attached) for the main nets exceeds 60 metres and 1 (one) try net exceeds 6 metres head line; ro bezialkistee
  - by method whereby the head line of any one-single main net exceeds 30
- stretched from knots to knots are less than 50 millimetres both on the body and cod end;
  - by method using an otter board that is more than 5 (five) square metres in area, per board; and sed to be about this error year exiting the
  - the fid word by beam trawlrof greater than 6 (six) meters beam length.
- (ii) The gear restriction for small-scale fishery employing beam trawl-towed by of assiveb odory or dinghy, shall be as follows: here at the prince average is. (1)
  - B. The taking of panaeid prawns is prohibited at all times:
- ic noished provide method where the width of all beam trawls exceeds 4 (four) metres; of stall and the sandranced break to make the bases and their contained
  - by methods whereby the meshes of all nets when measured from knots to knots, are less than 50 millimetres (2.0 inches); and
- by method of beam trawl that does not incorporate a fish escape panel consisting of 1 (one) metre wide panel of net was as a soft 50 millimetres (2:0 inches) meshclaid crosswise and which forms the stractific randoalbody of the net at the neck of the cod-end. The inclument
  - (c) There shall be no restriction on the species of prawn caught
- (b) \* scientific obserter/research programme mutually agreed to by the industry and to rake recommendations and to make recommendations ent evsimbe travil grounds from Jokea, to Cape Blackwood shall be closed from 1st objectives in Section 4. The industry may dareh. Etchhadmacade logistic

BERTHER BOUNDARIES FOR Close Afea: of subside up to react tedeo on a troume i septivosen mericifi elemetik redito et fleva an elemetik projeka di Western Boundary

The western boundary shall be the line 144 degrees 28 minutes 00 seconds no to the degrees 24 minutes south (8°24'42" S).

The degree is a south of the degree of the degree

Southern Boundary seinerlait lisionemmoo étaba-trans bina eonataiadus

sends and artherisoutherns boundary, shall be the line of latitude 8 degrees, 24 minutes 42 seconds south (8724/42% S) extending west to east from the termination of the

(c) Where possible effort shall be made to document and promote traditional conservation and management measubbuod hastest bus modern small some conservation and the conservation are conservations are conservations and the conservation are conservations are conservations are conservations and the conservation are conservations are conservations and the conservation are conservations are conservations are conservations are conservations are conservations and the conservation are conservations and the conservation are conservations are conservati

and eastern boundary shall be the coast from the southern point of Cape Blackwood to loke Village in the east.

traditional waters.

- (v) Industrial otter trawling and small-scale beam trawling shall be prohibited in Compression of the this area during the period specified.
- (e) Industrial fishing is prohibited within the three-mile zone from Parama Island to the border of the Gulf and Central Provinces. 海拔 6.5% 上方时 医橙
- Marketing standards shall continue to be based on the standards established by the relevant authorities. Yes to and the of and who advisor yo
- (g) The prawn operators shall be required to submit to the National Fisheries

  Authority;

  (i) Catch and effort data on the by-catch including non-finfish species;
- more (ii), all by-catch, shall be recorded;
  - (iii) all live mammals and turtles shall be returned to the sea and turtles shall be returned to the sea and turtles shall be returned to the sea and turtles shall be returned to the sea.
  - (iv) removing of fin from shark and returning them to sea alive is prohibited.
- (情) "Vessel Tracking System and Surveillance and the not treated as a see self 引,
  - (i) All prawn fishing vessels shall be required to carry vessel-tracking devices, to facilitate the fishery plan and increase safety in navigation and increase safety in navigation.
- (ii) Officer of the National Fisheries Authority and the Gulf Province Division of Fisheries shall be placed at random on board licensed prawn trawlers to tion and under take surveillance and research.

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- (a) In accordance with Section 29 of the Fisheries Management Act 1998, licensed operators are obliged to submit data on catch and effort, as well as marketing data, for the purpose of this fishery plant. The National Fisheries Authority shall supply log-books for entry of catch and effort data.
- (b) A scientific observer/research programme mutually agreed to by the industry and NFA may be set up to monitor the fishery and to make recommendations for any relevant changes for improvement of the fishery plan to achieve the objectives in Section 4. The industry may be requested to provide logistic support and other form of assistance to implement the research programme in relation to prawns as well as other alternate fishery resources in the Gulf Vestert Brandary of Papua. The vastern poundary shall be the line 144 degrees its minutes the seconds

# SPECIAL CONSIDERATION FOR TRADITIONAL RESOURCE OWNERS

- (a) Special consideration should be given to the need to avoid adverse impact on subsistence and small-scale commercial fisheries yielding a madeuo?
- Services (Neurosources: Inside the three ownership of the riear-shore his heries resources (Neurosources: Inside the three econds soubsatification and resource and res
- (c) Where possible, effort shall be made to adjust the and promote traditional conservation and management measures in the three mile zone where smalldating meditusealet prawn trawling toperations, may be developed. In order to enhance the conservation and management practices of the fisheries resources within the traditional waters.

- (d) Preference will be given to licence application from traditional resources owners, both for fishing by method of industrial trawling and by method of beam trawl towed by dory or dinghy.
- (e) The National Fisheries Authority in collaboration with the industry and provincial authority shall work towards facilitation and establishment of smallscale fisheries development of the prawn and associated finfish resources within certain parts of the three-mile zone.

### 9 **AMENDMENTS**

Any amendment to this fishery plan may be made by giving notice through the control of the contr National Gazette on recommendation from the National Fisheries Board; as new information are obtained to enhance the objectives of this fishery plant to enhance the objectives of this fishery plant. · An Sa Year 中心部間分。

Endorsed this

day of September

1999.

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scope of the management plan

coastline (that is the ierritorial seas)

(a) Orangerie Bay Prawn Pishery Area For the purpose of this lishery Management Plan the geographical area covered by this management plan is the sea area comprising all the waters of the Grangerie Pay commending on the west at the latitude 11% degrees 30 minutes and Q0 seconds east, being it a Central and Milne Pay Provincial Boundary to the east at latitude 156 degrees and 5 millstes and 30 succonds east being that suth-eastern side of Mullins Habuurt Bredde, extending from the mainland/coastling seaward to 12 nautical miles from the mainland

(a) The medical of furtien covered by this management plans: For this purpose of this Fishery Management Plan the method of the cinqle vessel ofter travit fishing, and the method of the pear is rawl crived by upry or

# FISHERIES MANAGEMENT ACT 1998

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# ORANGERIE BAY PRAWN FISHERY MANAGEMENT PLAN

CONTRACTOR AND AND ADDRESS.

THE NATIONAL FISHERIES AUTHORITY, by virtue of the power conferred by Section 28 of the Fisheries Management Act 1998 and all powers it enabling, hereunder provide the following fisheries management plan to supercede previous plans on gazettal G1 in 1997 under the Fisheries Act 1994, to take effect on and from the date of approval by the Minister。 and reading capitals of the analysis of the control of the control of

## 1.

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### INTERPRETATION 2.

This Fishery Management Plan, unless the contrary intention appears:

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"Fishery Management Area" means the specified area to which the fishery plan relates.

"Growth Overfishing" means overfishing of prawns when prawns entering the fishing grounds for the first time by offshore migration from estuarine nursery areas are taken at an early stage before they have had sufficient time to grow and increase in size and value to full market price.

"Juvenile Recruitment" means the offshore migration of juvenile prawn from estuarine nursery areas (mangroves and sea grass) into the trawl grounds, where they are liable to industry harvest for the first time.

"The Three-Mile Zone" means the sea area which extends from the mean lowwater mark seaward by 3 nautical miles (as per the National Seas Act).

"Timed Area Closure" means that a specified area is closed to fishing for a specified time:

"Traditional Resource Owners" means families with fishermen or single fishermen who have traditionally fished for both prawn and fin fish in nearshore coastal waters and are recognised by their people as having traditional ownership rights to the coastal prawn and fin fish resources.

### SCOPE OF THE MANAGEMENT PLAN 3.

- (a) Orangerie Bay Prawn Fishery Area For the purpose of this Fishery Management Plan the geographical area covered by this management plan is the sea area comprising all the waters of the Orangerie Bay commencing on the west at the latitude 149 degrees 30 minutes and 00 seconds east, being the Central and Milne Bay Provincial Boundary to the east at latitude 150 degrees and 5 minutes and 00 seconds east being the south-eastern side of Mullins Habour; thence, extending from the mainland coastline seaward to 12 nautical miles from the mainland coastline (that is the territorial seas)
- (b) The method of fishing covered by this management plan For the purpose of this Fishery Management Plan the method of the single vessel otter trawl fishing; and the method of the beam-trawl towed by dory or

dinghy. Other methods are prohibited unless approved by the Minister for Fisheries.

### 4. OBJECTIVES OF THE MANAGEMENT PLAN

The broad objective of this management plan is to reinforce and give effect to the Fisheries management principles in the *Fisheries Management Act 1998*; and specifically;

- (a) to restore the prawn stocks and maintain them at a level capable of producing the maximum sustainable yield with consideration to environment and economic factors;
- (b) to maximise the benefit to the operators, the immediate resources owners and the people of Milne Bay Province.
- (c) to adopt necessary and appropriate conservation and management measures for the reduction and utilisation of the by catch;
- (d) to maintain and promote participation of the immediate resource owners in the prawn industry;
- to monitor the interaction between the artisanal fishing activities and commercial fishing operations and;
- (f) to manage the fishery with a precautionary approach.

# 5. PRECAUTIONARY APPROACHES TO FISHERIES MANAGEMENT

Consistent with regional and international management principles, a precautionary approach shall apply for the Orangerie Bay prawn fishery in accordance with the following provisions:

- (a) In the absence of adequate scientific data, the National Fisheries Authority has taken into account any uncertainties with respect to the size and productivity of the stock, and the impact of fishing activities on associated and dependent species, and including climatic, oceanic, environment and socio economic conditions.
- (b) In managing the fishery, the National Fisheries Authority has considered the associated ecosystems in Orangerie Bay and Mullins Harbour. Data collection and research projects shall be developed 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 any habitat of special concern.
- (c) The absence of adequate scientific information will not be used as a reason for postponing or falling to take measures to protect the target and the non-target species.
- (d) The permanent closure to commercial trawling in the Mullins Harbour is a precautionary approach, until further studies have been done to determine the relationship of the harbour to Orangerie Bay.

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# 6. MANAGEMENT MEASURES TO PERSONAL STOCKS TO BE STOCKED OF THE STOCK OF THE STOCK OF THE STOCKED OF THE STOCKED

The following management measures, which are to realise the objectives in 4.0, shall take effect immediately:

(a) Licensing measures.

The number of trawlers and licenses in the Orangerie Bay prawn fishery shall be restricted to two. 公司 2007年 (2017年) 经基础公司额 1000年 (1717年) 2017年 (2017年)

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- (b) Gear restrictions(i) Vessel size shall be no greater than 14.0 meters overall length (LOA) and engine size no greater than 200 British Horsepower.
  - (ii) Trawling shall be by method of otter trawl, with no more than 2 main nets and cod-end mesh size shall be no smaller than 50 mm.
- (iii) The aggregate head rope (with mesh attached) for the main nets shall not exceed 40 meters.
  - (iv) Trawling shall only be carried out in daylight hours from 06.30am to
  - 18.30pm.
    (v) Trawling by boats operating from ports outside of Milne Bay Province shall not be permitted into this fishery.
  - (c) Total Allowable Catch (TAC). A total allowable catch (TAC) of 35 tonnes shall be enforced. Fishing operations shall cease when the TAC has been reached and shall not be resumed until 1<sup>st</sup> May of the following year.
- (d) Time Closure The area of Mullins Harbour shall be closed permanently to any prawn trawling, including commercial beach seining

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- nges, in securities, widelf to be made them, some this in cover comp (a) Provision of fishing data has presented been respect these some Pursuant to the Fisheries Management Act 1998, licensed operators are obliged to submit data and on catch and effort, as well as marketing data, perent for the purpose of this management plan.
- the case toted ecosystems in Oronoetic Bay and Müllins Harbour L To to (b) Research programme vehicles to the control of the contro esizno in fishery and make recommendations for any relevant changes for improvement of the management plan to achieve the objectives in 4.0.
- (ii) Routine test fishing may be carried out during the closure in bne is a recollaborating and under the supervision of the National Fisheries Authority to estimate the stock levels. 391090 100001-non edit

# SPECIAL CONSIDERATION FOR TRADITIONAL RESOURCES OWNERS

- crecautionary approach, until further studies have been done to determine (a) Special consideration should be given to the need to avoid adverse impact on subsistence and small-scale commercial fisheries.
  - (b) Ownership of the near-shore resources including the Mullins Harbour, by traditional resource owners is recognised.
  - (c) Where possible effort shall be made to document and promote traditional conservation and management measures in the three-mile zone where small

scale prawn operations may be developed, in order to enhance the conservation and management practices of the fisheries resources within the traditional waters.

(d) Vessels based in ports outside of Milne Bay Province shall not be permitted into the fishery

# 9. AMENDMENTS

The Minister shall from time to time give notice of any amendments as new information is obtained to enhance the objectives of this management plan.

Endorsed this  $94^{7}$ M

day of September

1999.

Chairman National Fisheries Board.

Approved this

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