



Pacific
Community
Communauté
du Pacifique

Facilitating the non-detriment finding process via an online eNDF tool

A follow-up from RTMCFA5 Working Paper 2 “What is
needed for trade in CITES-listed sea cucumber species”?

Recap from RTMCFA5

- Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)
- Agreement between governments to ensure that international trade does not threaten the survival of the species.

Recap from RTMCFA5

- Pacific relevant commercially important species listed on CITES appendix II



Holothuria whitmaei / black teatfish



Thelenota ananas / prickly redfish



Holothuria fuscogilva / White teatfish



Thelenota rubralineata / candycane fish



Thelenota anax / amberfish

Recap from RTMCFA5

- PICT feedback from RTMCFA5 working paper two
 - 17 PICTs responded to the survey and the majority (75%, 12 of 17) were in support of SPC developing an eNDF.
 - 12 PICTs collect data on sea cucumber populations for stock assessment
 - Almost all reported that they have sea cucumber fisheries management strategies in place (94%, 16 of 17)
 - 60% of responses reported that management measures are somewhat effective, 20% reported effective measures, and 20% had ineffective management measures
 - Common strategies used to manage the fishery were “closed or open seasons” (8 responses), followed by “size limits” (7 responses), “total allowable catch” (6 responses) and “spatial closures” (5 responses)

Recap from RTMCFA5

The information falls into three main categories

Science (e.g.)

- Population densities and distribution (Fishery-independent)
- Population size structure (both)
- Trade and fisheries pressure (Fishery-dependent)

Management measures (e.g.)

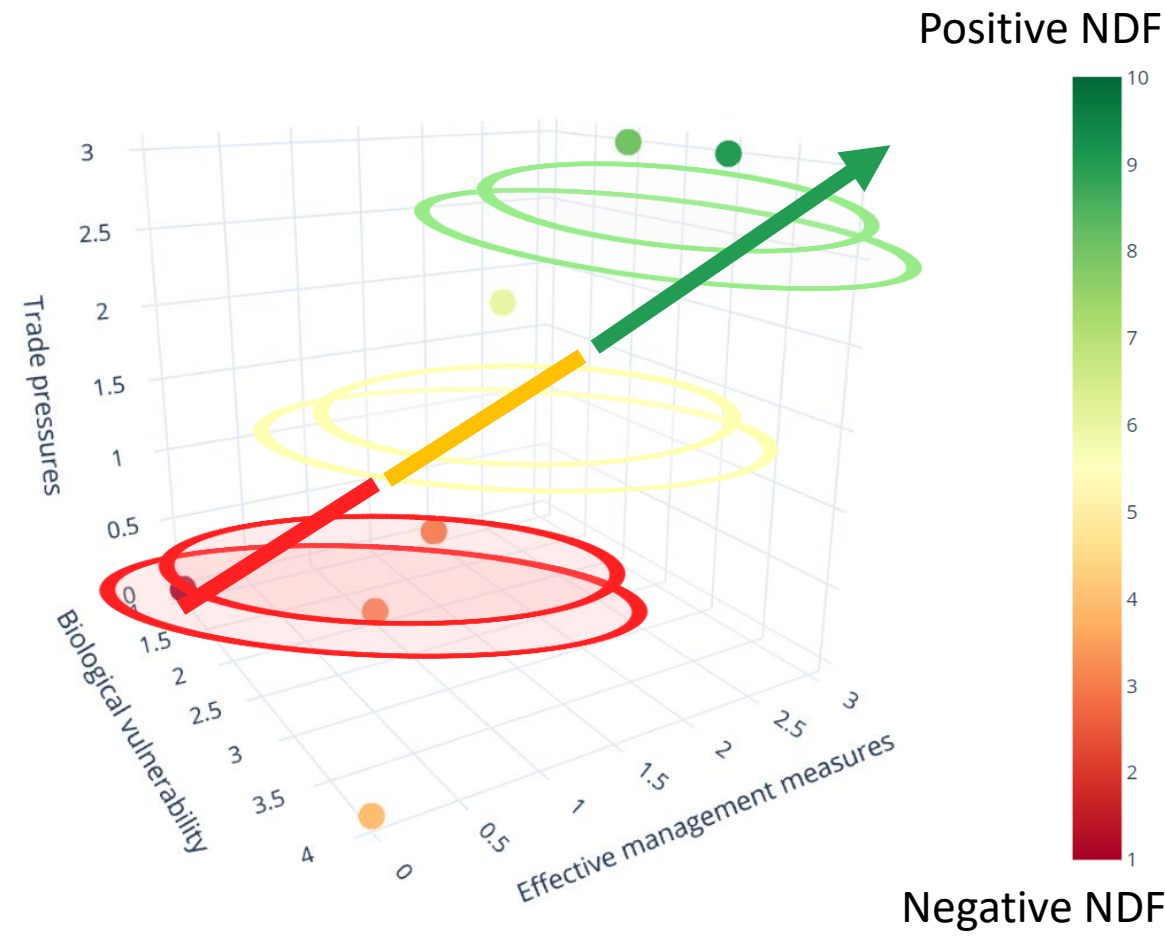
- Seasonal closures
- Size limits (scientifically informed)
- Rotational harvest (scientifically informed)
- Adjusting harvest levels (scientifically informed)

Management effectiveness

- How well these measures are implemented so that they can reduce the vulnerability of the species' population (i.e. manage sustainability)

Development of the eNDF

- Using the three categories that can affect how a species' population responds to fishing pressure a three-dimensional risk matrix was developed
 - Intrinsic biological and population vulnerabilities
 - Trade and fishing pressures
 - Management measures to mitigate risk
- Each value is scored and weighted by effectiveness and/or confidence in the assessment



Navigate

Step 1 >>

1.0

1.1a

1.2

1.3

1.3a

1.3b

Step 2 >>

2.1

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Step 3 >>

3.1

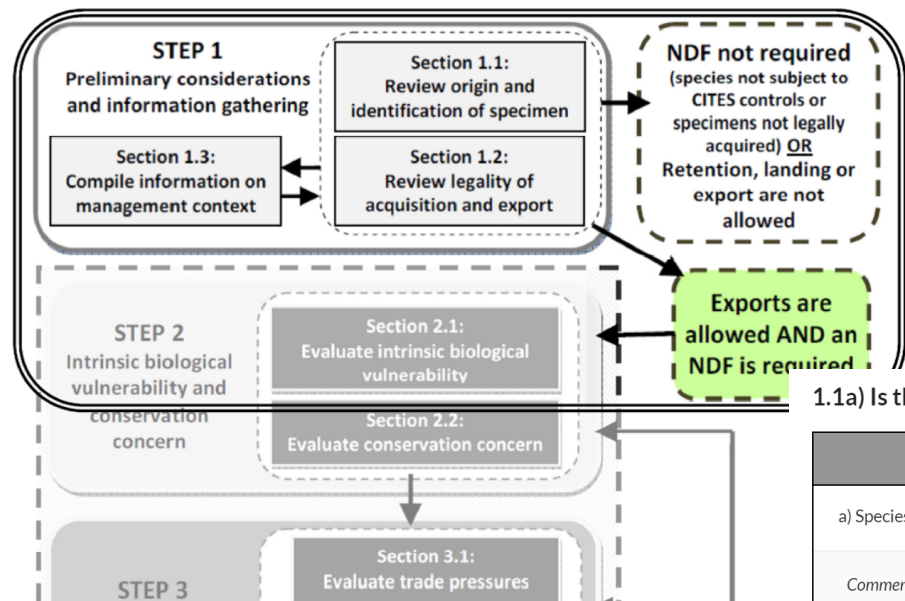
3.2

Step 4 >>

4.1

Step 5 >>

STEP 1: PRELIMINARY CONSIDERATIONS AND INFORMATION GATHERING



1.1a) Is the specimen subject to CITES controls?

Question	Answer
a) Species 🔒 1 entry	Holothuria whitmaei ✕
Comments/Other information	Enter text
b) Is either the exporter or importer a CITES party? 🔒 1 entry	Yes ✕
Comments/ Source(s) of information 🔒 1 entry	Is either the exporter or importer a CITES party? If the answer is yes, then it is subject to CITES controls.
c) In what form is the product? 🔒 1 entry	Dried (Gutted) ✕
Comments/Source(s) of Information	Enter text
d) Source of identification 🔒 1 entry	Identified by expert, has chain of custody ✕
Comments/ Source(s) of information	Identified at exporter facility and customs. Has chain of custody
How likely is the product to be correctly identified:	Likely
Question 1.1(a): Is the specimen subject to CITES controls?	Yes

Automated scoring based on answers

Save and refresh

Publish

Attach supporting information

Preview e-NDF

Back (no saving)

Navigate

Step 1 >>

- 1.0
- 1.1a
- 1.2
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- 1.3a
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Step 2 >>

- 2.1
- 2.2

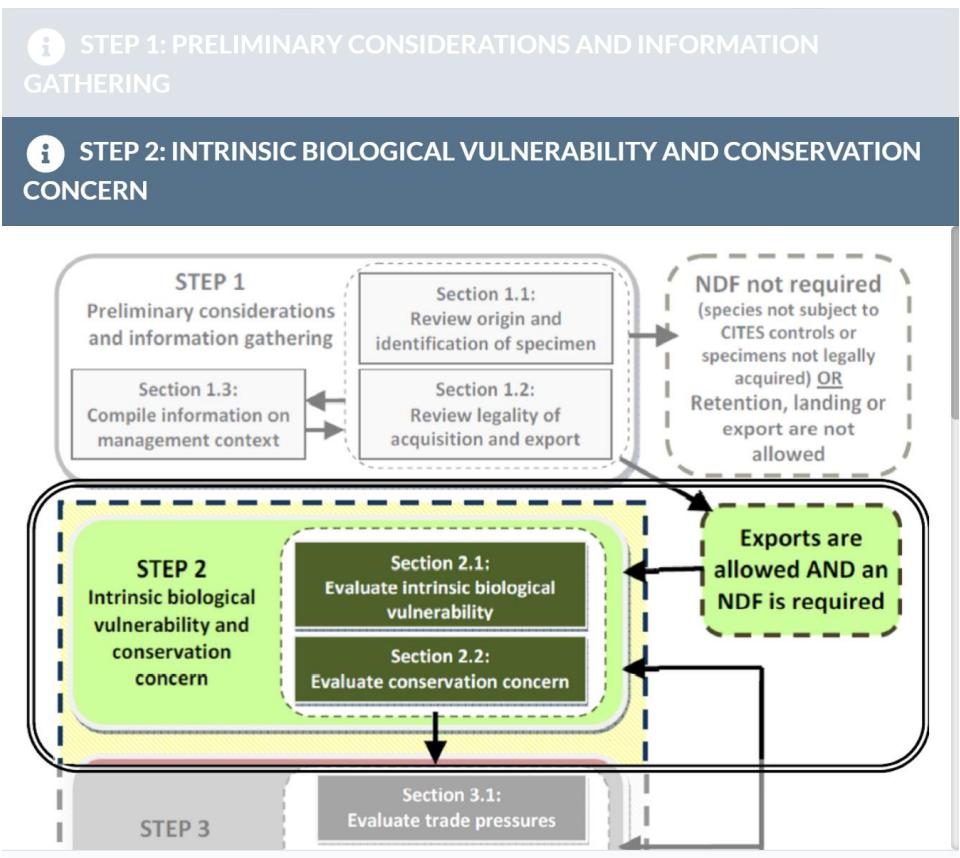
Step 3 >>

- 3.1
- 3.2

Step 4 >>

- 4.1

Step 5 >>



Automated scoring based on answers

2.2) What is the severity and geographic extent of the conservation concern?

Conservation or stock assessment status:

Question	Answer
Current spatial distribution of the population (within 2 years) 1 entry	Widespread (common) x
Comments/ Source(s) of information	Enter text
Mean size relative to size at maturity 1 entry	more than 1.2 x
Comments/ Source(s) of information	Enter text
Trend of the population density 1 entry	Stable -5% to 5% x
Comments/ Source(s) of information	Enter text
Current population density relative to reference density 1 entry	50% to 80% x
Comments/ Source(s) of information	Enter text
Trend in the spatial distribution of population relative to historical distribution 1 entry	The same x
Comments/Sources(s) of information	Enter text
Other known sources of mortality unrelated to fishing pressure that affect population condition (e.g. local environmental or climate related disturbances) 1 entry	Low (no known pressures on stock) x
Comments/Source(s) of information 1 entry	Enter text
Overall geographic conservation concern	Low level of concern

Navigate

Step 1 >>

- 1.0
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- 1.3a
- 1.3b

Step 2 >>

- 2.1
- 2.2

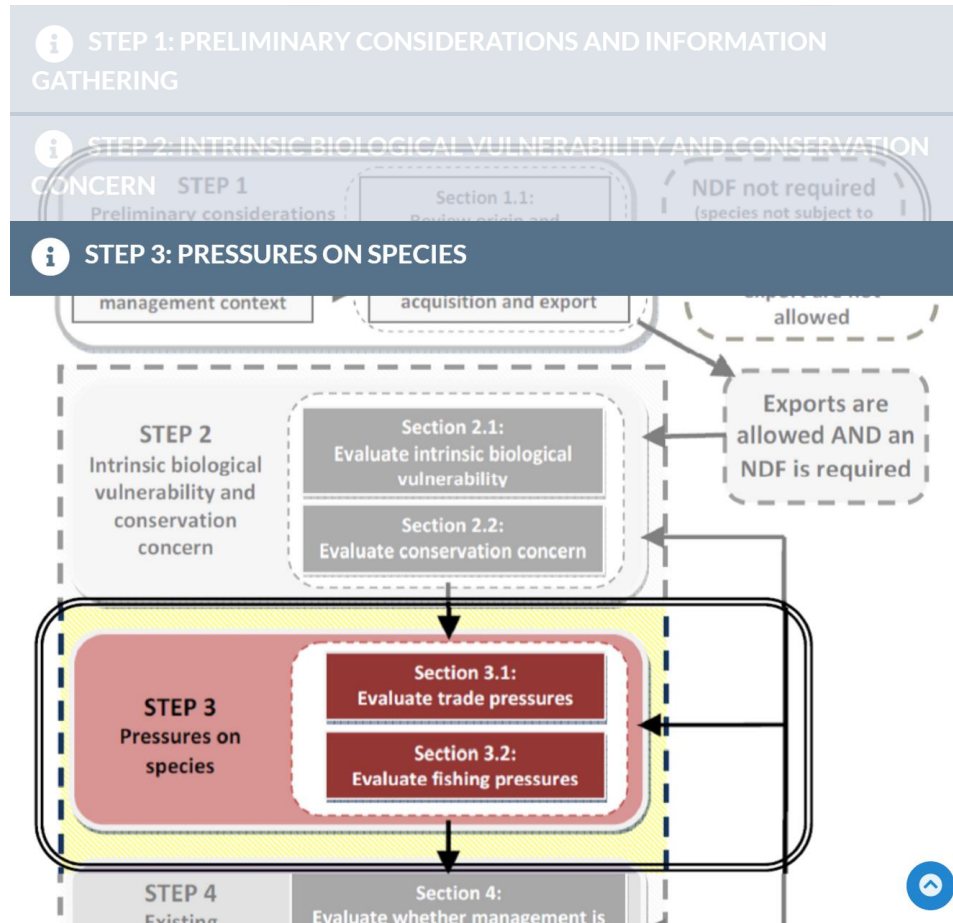
Step 3 >>

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Step 4 >>

- 4.1

Step 5 >>



Domestic and International supply and demand

3.1) What is the severity of trade pressure on the stock of the species concerned?

Question	Answer
a (i) Magnitude of legal trade	High
ii) What is the level of confidence in the answer?	High
Comments/ Source(s) of information	Export data
b (i) Magnitude of illegal trade	Low
ii) What is the level of confidence in the answer?	High
Comments/ Source(s) of information	Compliance monitoring data
Overall trade pressure:	Medium
Overall level of confidence:	High

Domestic fishing pressure

3.2) What is the severity of fishing pressure on the stock of the species concerned?

Question	Answer
a (i) Fishing mortality (retained catch)	High
ii) What is the level of confidence in the answer?	High
Comments/ Source(s) of information	Fishing mortality is less than 20% of the total stock size or less than 40% of the total mature stock.
b (i) Discard mortality	Low
ii) What is the level of confidence in the answer?	High
Comments/ Source(s) of information	This pressure can be from individuals caught and discarded for any reason for example, poorly processed sea cucumber into beche de mer and then discarded
c (i) Size/age/sex selectivity	Low
ii) What is the level of confidence in the answer?	High
Comments/ Source(s) of information	Enter text
d (i) Magnitude of illegal, unreported and unregulated (IUU) fishing	High
ii) What is the level of confidence in the answer?	High
Comments/ Source(s) of information	I think this should be weighted higher within this group of questions.
Overall severity of fishing mortality:	Medium
Overall level of confidence:	High

Save and refresh

Publish

Attach supporting information

Preview e-NDF

Back (no saving)

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1.3a

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Step 2 >>

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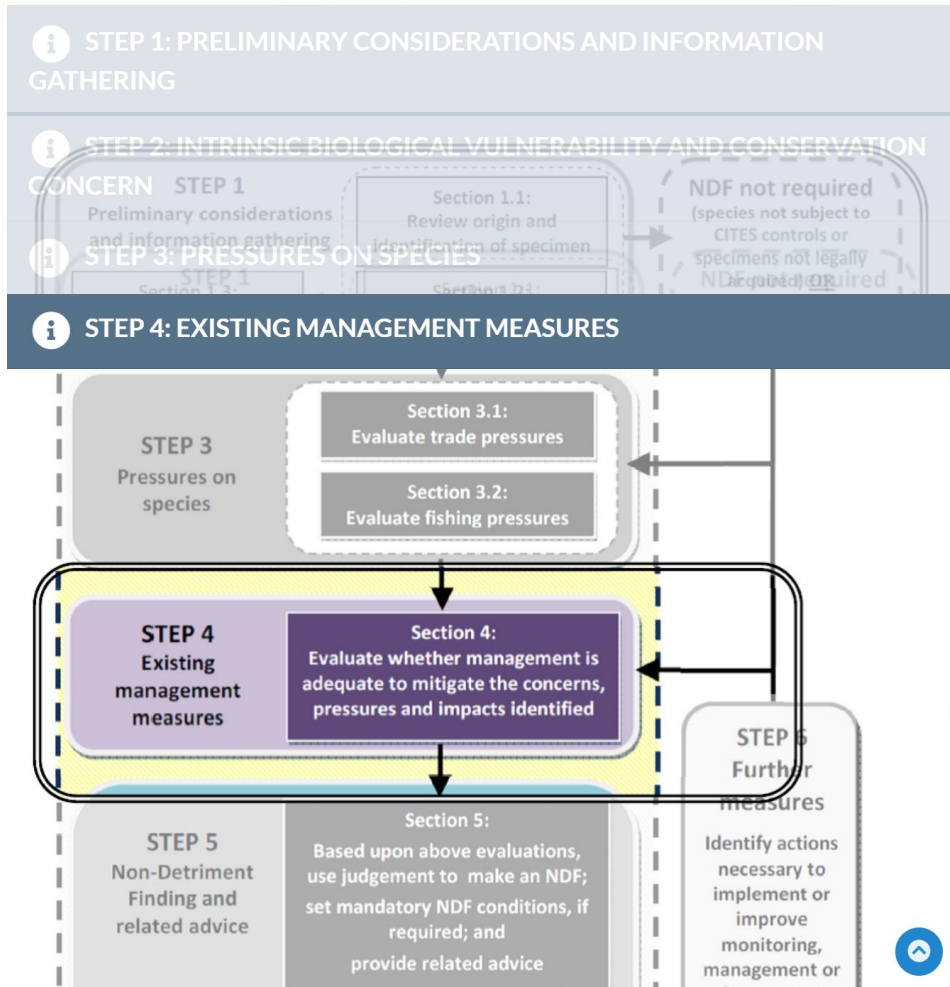
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Step 4 >>

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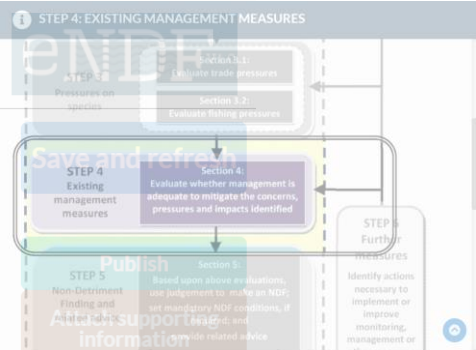
Step 5 >>



list management measures and then evaluate effectiveness at controlling trade and fishing pressures

e.g. limit number of exporter licences

e.g. TAC, size limits, seasonal fishing, and community managed areas



Fishing and trade Pressures

Setup Measures

< 8 Measures added

Pressures

Magnitude of Legal Trade 4 measures

Magnitude of Illegal Trade 1 measure

Fishing mortality (retained catch) 3 measures

Discard mortality 1 measure

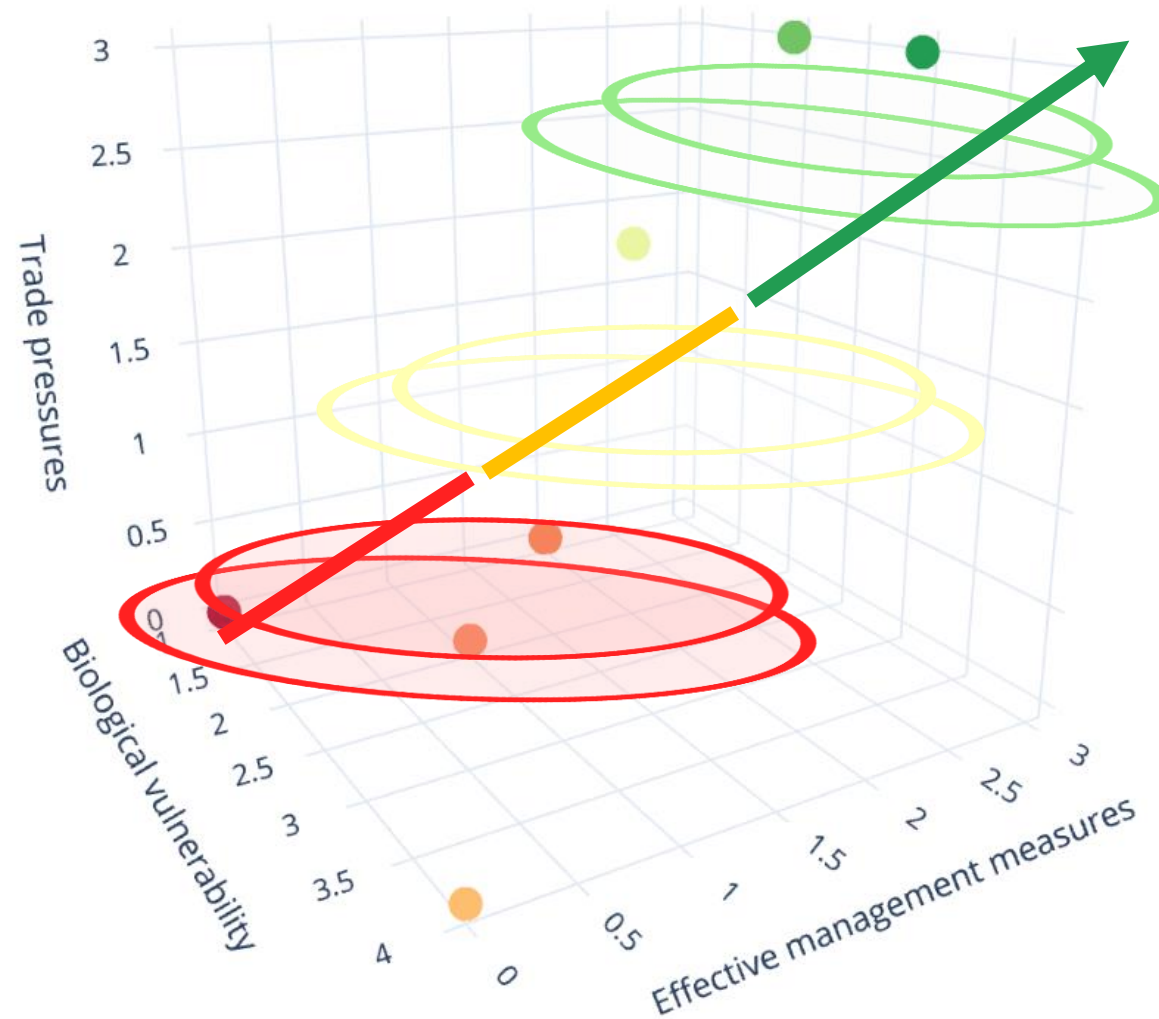
Size/age/sex selectivity 1 measure

Magnitude of IUU fishing 1 measure

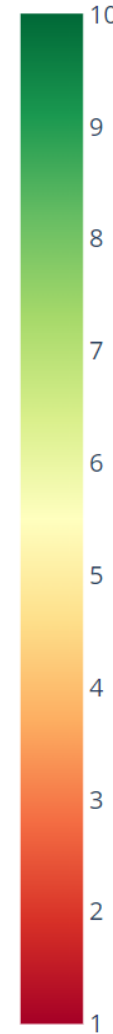


etc etc						
Apply Measure to Pressure						
	Measure	Relevant monitoring, control, and surveillance (MSC) measure(s)	Overall assessment of compliance regime	Are relevant data collected and analysed to inform management decisions?	Is management consistent with expert advice?	Is the management measure effective at addressing the pressure?
	Compliance monitoring	Weekly patrols at landing sites and processingundefinedexport facilities	Good (comprehensive relevant compliance measures in place)	Some relevant data are collected AND analysed to inform management	Consistent	Yes
			1 entry	1 entry	1 entry	1 entry
	TAC	Weekly monitoring at processingundefinedexport facilities	Good (comprehensive relevant compliance measures in place)	Comprehensive data collected AND analysed to inform management	Consistent	Partially
		2 entries	1 entry	1 entry	1 entry	1 entry
	Temporal fishing bans	Weekly monitoring at processingundefinedexport facilities	Good (comprehensive relevant compliance measures in place)	Some relevant data are collected AND analysed to inform management	Expert advice partially implemented	Partially
		2 entries	1 entry	1 entry	1 entry	1 entry
	Size limits	Enter text	Select an option	Select an option	Select an option	Select an option

Management measures



Positive NDF



Negative NDF

Effective management
measures & compliance

Sustainable trade and
fishing pressures

Stable population

Save and refresh

Publish

Attach supporting information

Preview e-NDF

Back (no saving)

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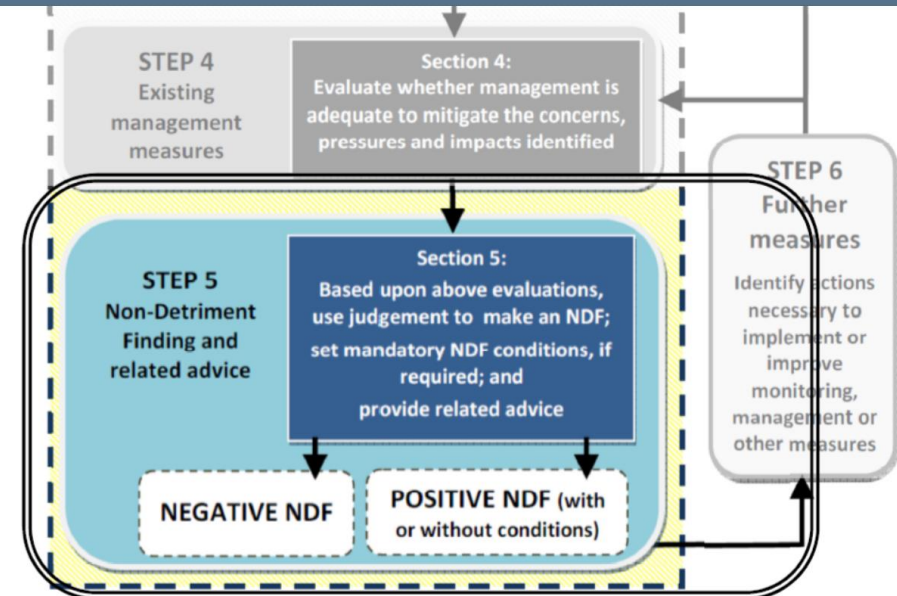
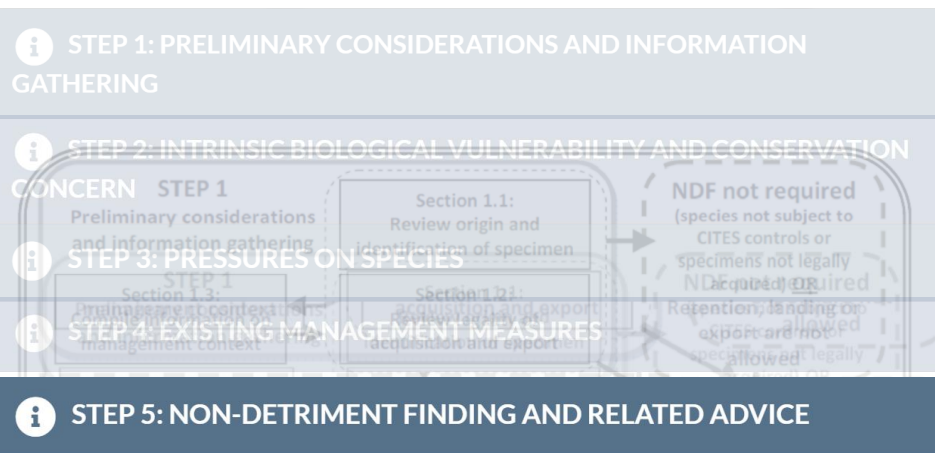
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Step 4 >>

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Step 5 >>



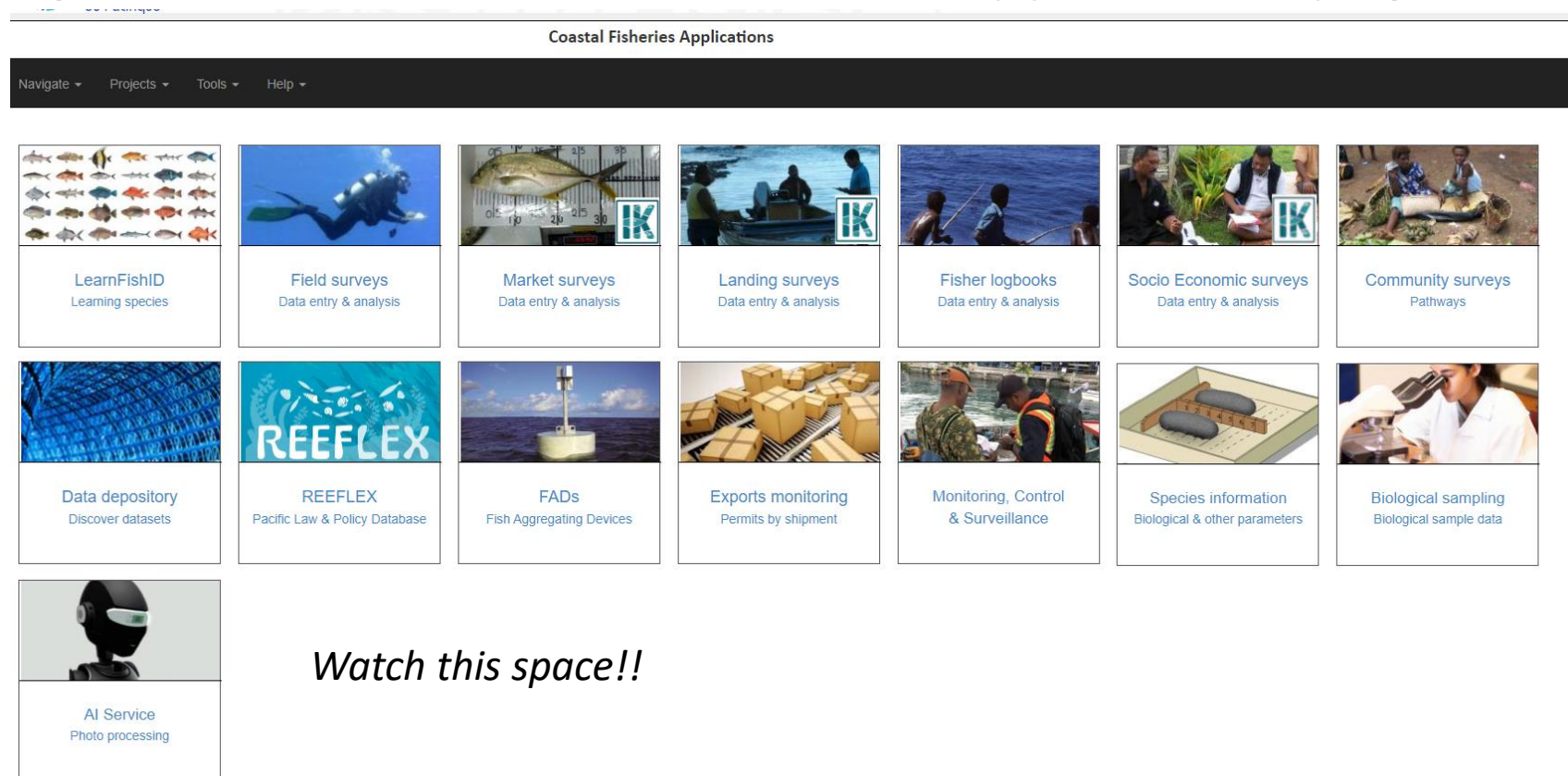
Automated eNDF risk score based on all answers

Step 5: Non-Detriment Finding and related advice

5.0	Non-Detriment Finding and related advice			
5.1	Based on the outcomes of the previous sections, is it possible to make a positive NDF (with or without associated conditions)?			
STEP 1: Can/should an NDF be made?				
Section 1.1(a): Is the specimen subject to CITES controls?			Yes	
Section 1.1(b): How likely is the product to be correctly identified?			Likely	
Section 1.2: Were specimens legally obtained?			Yes	
STEP 2: Intrinsic biological vulnerability and conservation concern				
Section 2.1: Intrinsic biological vulnerability:			High level of vulnerability	
Section 2.2: Conservation concern:			Low level of concern	
STEP 3: Pressure on species				STEP 4: Existing management measures
Pressure		Level of severity (Questions 3.1 and 3.2)	Level of confidence (Questions 3.1 and 3.2)	Are the management measures effective at addressing the concerns/ pressures/impacts identified?
Trade pressures:				
a)	Magnitude of legal trade	High level of risk	High level of confidence	Partially
b)	Magnitude of illegal trade	Low level of risk	High level of confidence	Yes
Fishing pressures:				
a)	Fishing mortality (retained catch)	High level of risk	High level of confidence	Yes
b)	Discard mortality	Low level of risk	High level of confidence	Yes
c)	Size/age/ sex selectivity	Low level of risk	High level of confidence	Yes
d)	Magnitude of illegal, unreported and unregulated (IUU) fishing	High level of risk	High level of confidence	Yes
Automated Recommendation:		8	Not recommended unless mitigation measures applied	
0 to 2 - Not recommended				
2.1 to 5 - Not recommended unless mitigation measures applied				
5.1 to 8 - Possible with conditions				
8.1 to 10 - Recommended				
Based on the above information, can a positive NDF be made?		Yes, without conditions		
Go to Section 6 and list recommendations for measures to improve monitoring/management under reasoning/comments below				

Progress of the eNDF

- A version for testing (beta version) will be ready December 2023
- Migrated to SPC's Coastal Fisheries applications page January 2024



Watch this space!!

Thank you
Merci beaucoup
Vinaka vakalevu
Malo 'aupito
Tagio tumas
Ko rabwa
Fa'afetai lava

