

WEAVING TOGETHER SCIENCE & COMMUNITY FEEDBACK FOR THE **GUAM REEF FISHERIES MANAGEMENT PLAN**

August 20, 2025



GUAM DEPARTMENT OF AGRICULTURE
DIVISION OF AQUATIC &
WILDLIFE RESOURCES
GUĦAN YAN UNIKLA' MACHALRE' NA' SĦĦĦĦ



Sea Grant
UNIVERSITY OF GUAM

The need for a fisheries management plan:



Abundance and size of Guam's fish stocks have been gradually decreasing for over two decades.



Climate change



Erosion →
Sedimentation



Land-based pollution



Fishing pressure

Guam is the least managed island in Micronesia.

CNMI:

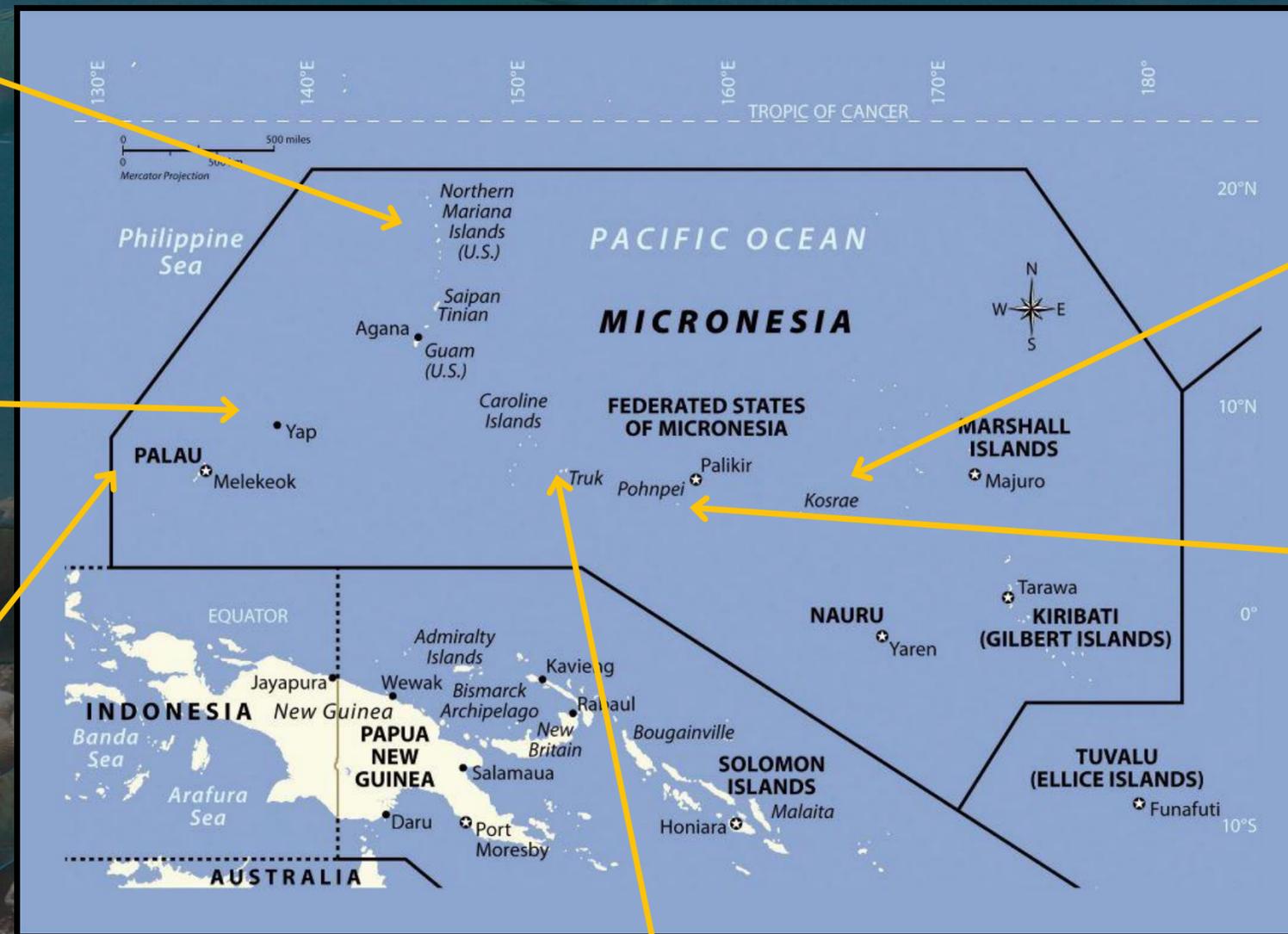
- Gillnet licenses
- Commercial licensing and reporting
- Prohibited methods
- No-take MPAs

Yap:

- Size limits on key species
- Bans on tangison & atuhong
- Seasonal grouper closures
- Village-managed marine areas

Palau:

- Tangison size limit 25 in.
- Exports banned
- Grouper seasonal possession/sale ban
- Dozens of MPAs with national-level monitoring



Kosrae:

- Community Ecosystem Based Approach to fisheries management
- Size limits
- Bans on key reef species
- Grouper seasonal bans during spawning

Pohnpei:

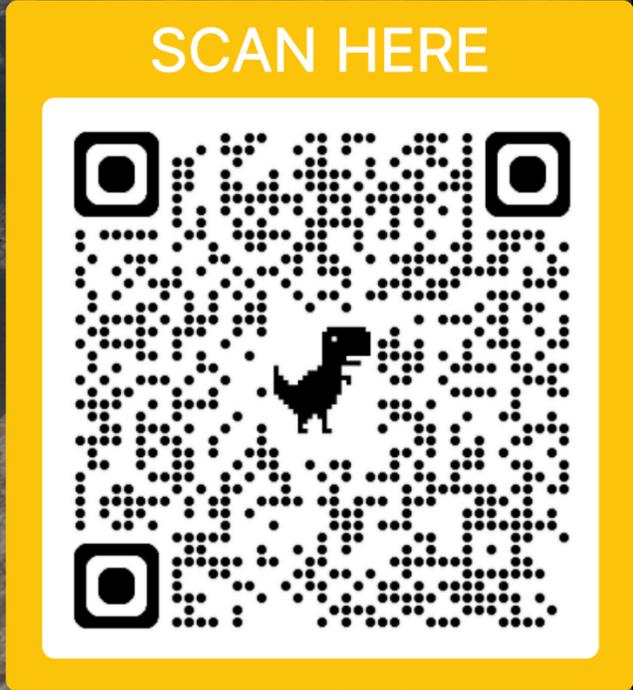
- Over 15 MPAs, many co-managed by traditional groups
- Grouper closures
- Bans on exports of protected species
- Local size restrictions

Chuuk:

- Species-specific size limits
- Bans on tangison & atuhong
- Grouper moratorium Jan-April
- 8 MPAs as part of community-based fisheries management

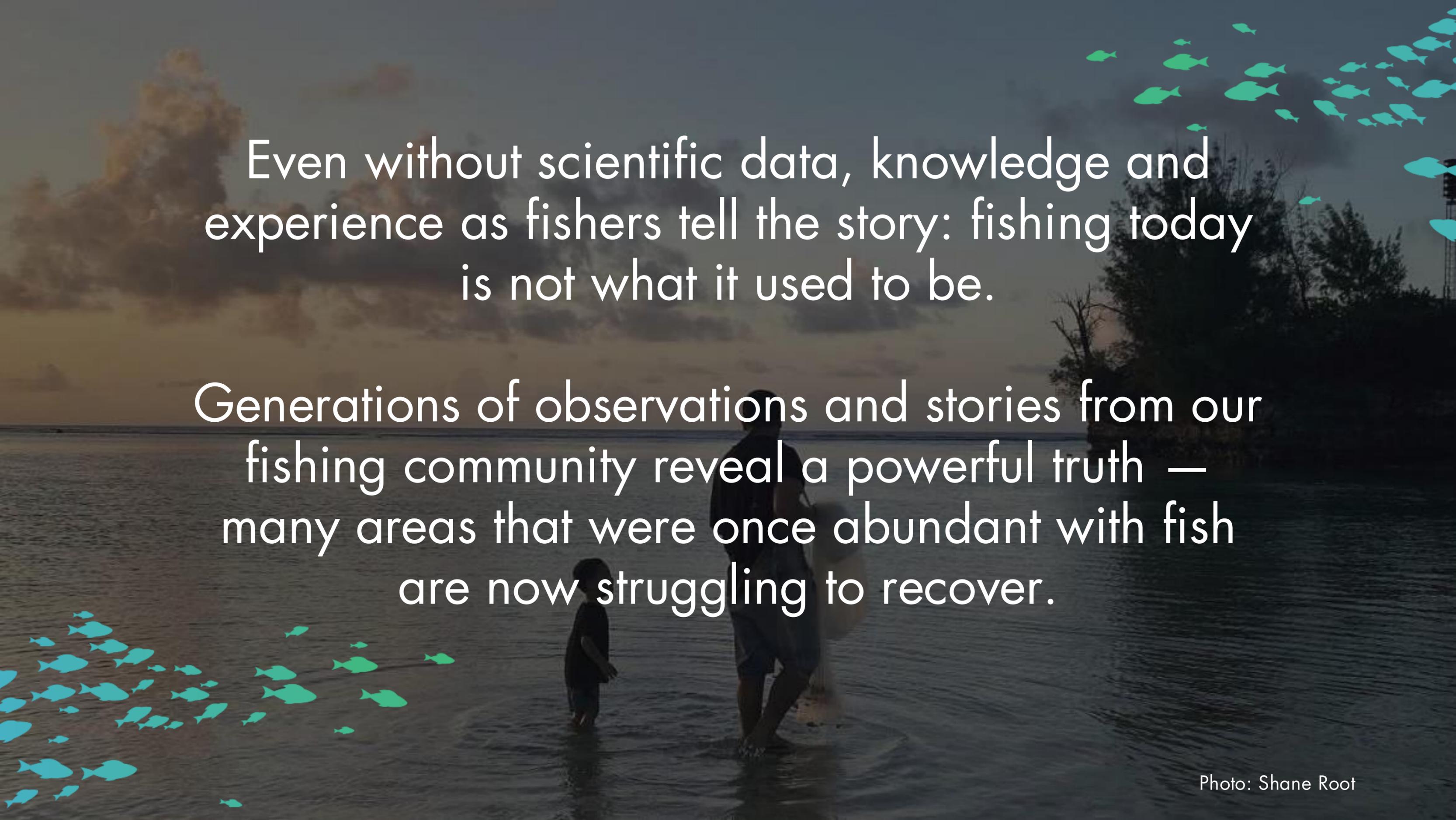
Science/data component: What's the science behind this FMP?

- Science looked at top species we enjoy eating and examined their status over the years: increasing, decreasing, or stable?
 - Consensus approach: several datasets
- Assessments revealed that up to 63% of top species caught showed declining biomass or size trends over time.



Target species	GLTMP-Resilience-MPA (BINOMIAL)	GLTMP-MPA (BIOM)	FI MICRONESIA (PROP)	Guam-PH-SPC-MPA (BIOM)	Guam-PH-SPC-MPA (SIZE)	NOAA-CREMP-Habitat	Guam-Stereovideo-(BiomassXFishingPressure)	Guam-StereoVideo-(BiomassMPA)	Guam-Stereovideo-(SizeXFishing Pressure)	Guam-Stereovideo-(SizeXMPA)	FI consensus
<i>Acanthurus lineatus</i>	ns	ns	0.68	-0.16	ns	ns	ns	ns	-0.08		4
<i>Aprion virescens</i>	ns	no data	ns	no data	no data	no data	ns	ns	no data	no data	3
<i>Bolbometopon muricatum</i>	no data	no data	no data	no data	no data	no data	no data	no data	no data	no data	6
<i>Caranx melampygus</i>	2.94	no data	ns	0.04	ns	1.17	ns	0.95	no data	no data	1
<i>Cephalopholis argus</i>	2.1	ns	ns	0.02	ns	no data	ns	ns	no data	no data	1
<i>Cheilinus undulatus</i>	no data	no data	ns	no data	no data	no data	ns	ns	no data	no data	6
<i>Chlorurus frontalis</i>	no data	no data	ns	ns	14.48	-1.31	ns	ns	-0.25	0.12	2
<i>Chlorurus microrhinos</i>	1.16	no data	-3.04	0.13	ns	no data	-0.97	1.74	-0.31	0.24	1
<i>Chlorurus spilurus</i>	ns	0.76	1.51	0.07	1.31	-2.1	ns	ns	-0.12	0.15	3
<i>Epinephelus fasciatus</i>	no data	ns	ns	0.002	no data	no data	ns	ns	ns	ns	5
<i>Epinephelus merri</i>	no data	ns	ns	ns	no data	no data	no data	no data	no data	no data	5
<i>Hipposcarus longiceps</i>	ns	no data	-0.41	0.03	ns	ns	-0.82	1.56	-0.60	0.66	3
<i>Kyphosus cinerascens</i>	ns	no data	ns	ns	ns	no data	ns	ns	ns	0.31	5
<i>Lethrinus olivaceus</i>	ns	no data	ns	0.03	ns	no data	no data	no data	no data	no data	5
<i>Lethrinus rubrioperculatus</i>	no data	no data	no data	no data	no data	no data	no data	no data	no data	no data	6
<i>Lethrinus xanthurus</i>	ns	no data	ns	0.02	ns	no data	no data	no data	no data	no data	5
<i>Lutjanus fulvus</i>	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	5
<i>Lutjanus gibbus</i>	ns	no data	ns	0.02	17.4	no data	ns	ns	ns	ns	2
<i>Lutjanus kasmira</i>	no data	no data	ns	no data	no data	no data	no data	no data	no data	no data	2
<i>Monotaxis grandoculis</i>	ns	ns	0.65	0.33	6.05	no data	-0.44	ns	ns	ns	3
<i>Mulloidichthys flavolineatus</i>	no data	no data	ns	no data	no data	no data	ns	ns	no data	no data	5
<i>Naso lituratus</i>	ns	0.18	2.11	ns	1.5	ns	ns	ns	-0.08	ns	2
<i>Naso unicornis</i>	ns	ns	0.44	0.06	5.7	-0.23	-0.2	ns	ns	ns	3
<i>Scarus pinnatus</i>	ns	ns	0.66	0.11	ns	-0.7	ns	ns	-0.12	0.12	3
<i>Scarus schlegelii</i>	ns	0.08	0.75	ns	2.78	-0.49	ns	ns	-0.12	0.14	2
<i>Siganus argenteus</i>	3.21	no data	ns	ns	ns	no data	ns	ns	no data	no data	5
<i>Siganus punctatus</i>	no data	no data	ns	no data	no data	no data	no data	no data	no data	no data	6
<i>Variola louti</i>	no data	no data	-0.09	0.01	ns	no data	-0.83	ns	no data	no data	1

Outcome key	Response
1	decline in (%) biomass strongest response
2	decline in size strongest response
3	decline equal in size and % biomass
4	increase in (%) biomass with mixed size response
5	mainly non-significant trends
6	insufficient data

A photograph of a man and a child wading in shallow water at sunset. The man is holding a large fish. The scene is overlaid with a school of glowing blue fish swimming in the water. The text is centered over the image.

Even without scientific data, knowledge and experience as fishers tell the story: fishing today is not what it used to be.

Generations of observations and stories from our fishing community reveal a powerful truth — many areas that were once abundant with fish are now struggling to recover.

This FMP has been a work in progress since 2020

Inception in 2020

Meetings:

- Jan 27, 2021 (virtual)
- May 21, 2021 (Central, Greg D. Perez Marina)
- Nov 4, 2021 (South, Santa Rita MO)
- Nov 23, 2021 (Stakeholder meeting, DAWR office)
- Apr 7, 2022 (North, Dededo MO)
- Oct. 7, 2024 (Stakeholder meeting, Hyatt)
- Nov 2024 - Jan 2025 (Community surveys conducted)
- Feb 10-12, 2025 (Draft non-spatial measures)
- Apr 21-22, 2025 (Discuss potential spatial measures)
- June 06, 2025 (Townhall rehearsal)



Stakeholder & Industry Input
FMP MEETING



DIVE SHOPS
TACKLE SHOPS
BOAT SHOPS

FOOD & BEVERAGE
RESTURANTS
HOTELS

BOAT COMPANIES
FISH MARKETS
FISH ORGANIZATIONS

November 23, 2021

Department of Agriculture
DAWR BOAT HOUSE
next to fisheries building
6:00 P.M.

Stewardship: the responsible overseeing and protection of something considered worth caring for and preserving.

671-735-0286
671-735-0294

GOVERNMENT OF GUAM | GUBETNAMENTON GUÅHAN
DEPARTMENT OF AGRICULTURE | DIPĀTTAMENTON AGRIKOTTURA
DIVISION OF AQUATIC & WILDLIFE RESOURCES |
GUIHAN YAN LINA'LA' MACHÁLEK NA GUINAHA



Guam Fisheries Management Plan

What management measures do you support most, and least, for Guam's reef fisheries?

Message @guam_fish or 671-482-2749.

Share your thoughts, take the survey.

This FMP has been a work in progress since 2020

Feedback & concerns included...

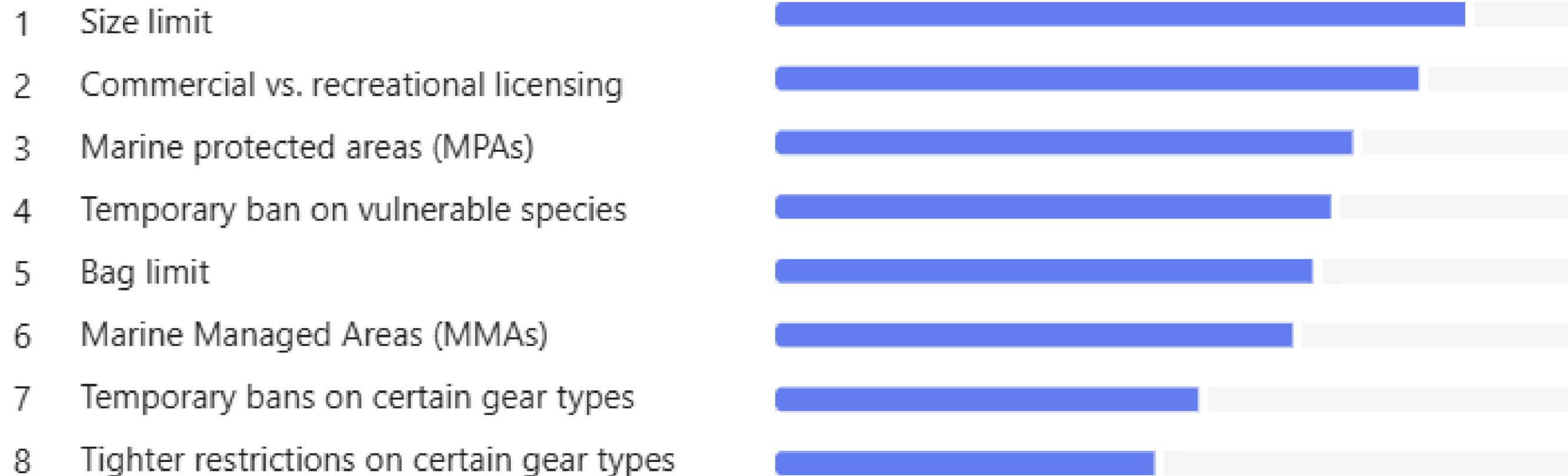
- Catching of undersized fish (size limits)
- Bag limits
- Mandatory catch reporting
- License requirements for commercial fishermen and fish vendors
- Overexploitation within nighttime spearfishing hours
- Increased fishing effort (having to fish longer and further away) for often-small gain
- among many others.

Initial input helped DAWR envision FMP.



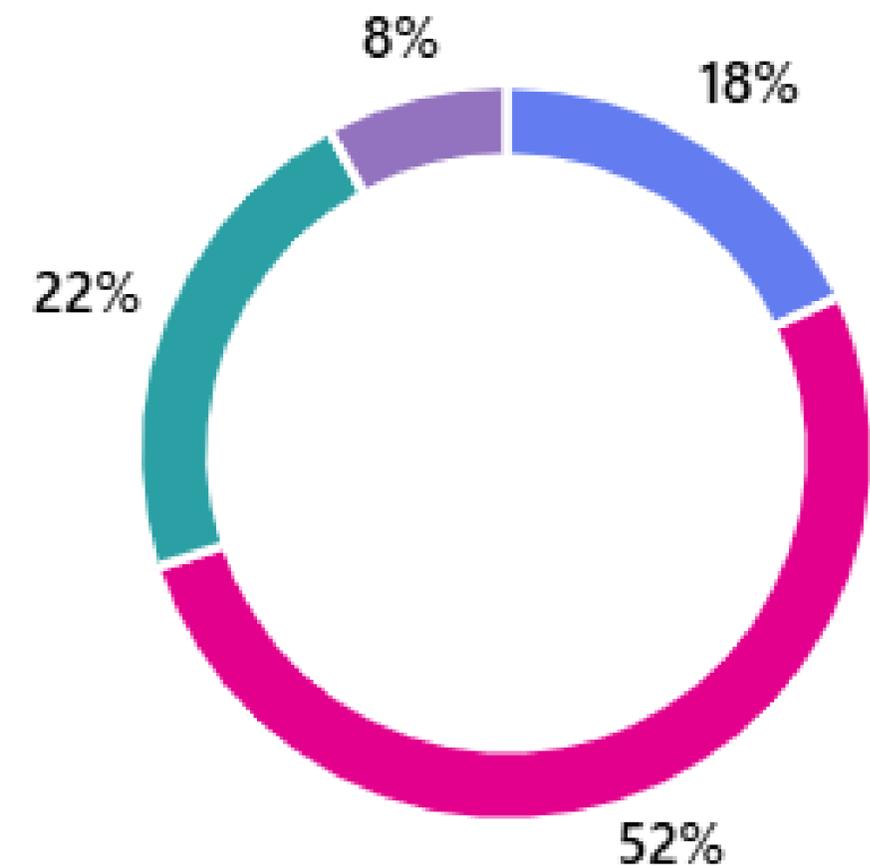
Additional input received from fishing community

“What types of measures would you support? (Consider feasibility of compliance, enforcement, and long-term benefits.)”

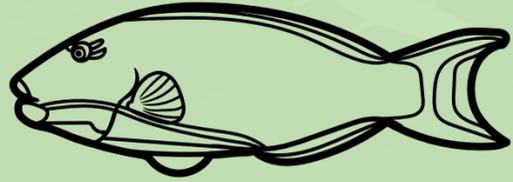


“Should commercial and subsistence fishing be regulated equally or differently?”

- Regulate both sectors, where regulations should be the same for both commercial and recreational...
- Regulate both sectors, but have stricter regulations for commercial fishers than for recreational fishers.
- Regulate only the commercial sector, where regulations apply only towards commercial fishers...
- I am unsure or have no opinion.



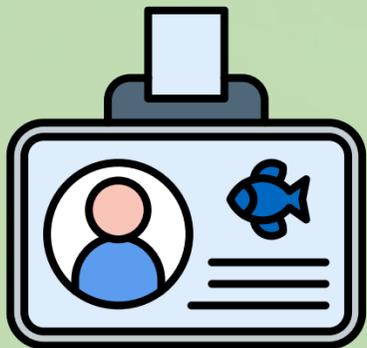
PROPOSED MEASURES BASED ON COMMUNITY INPUT



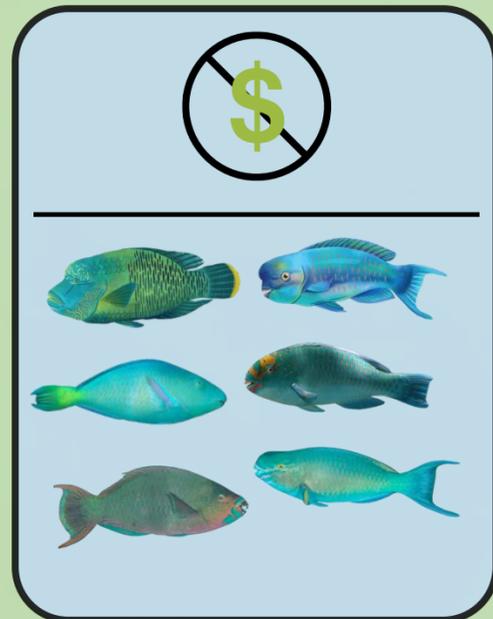
Minimum size limits for 9 species



No harvesting of atuhong



Mandatory licensing and catch reporting



"Big Six" ban



Prohibit commercial nighttime spearfishing only, but subject subsistence fishers to a permit and a daily limit



Seasonal moratorium on nighttime spearfishing; open during certain months (like Nov. to Apr.)



Moratorium on nighttime spearfishing for all sectors; re-evaluate in x years' time

These were created as a direct translation of the needs of the fish stocks (science) and the needs of the community (input/concerns).

Four townhalls were held to garner support for proposed measures and give everyone a chance to provide feedback.

TOWNHALL MEETINGS FOR THE GUAM FISHERIES MANAGEMENT PLAN

Calling all fishers and members of Guam's fishing community! Join us for upcoming townhall meetings to **share your voice and help shape** the Guam Fisheries Management Plan. We're inviting your input on **proposed measures to better manage our island's fisheries**. This is a conversation where your knowledge, experience, and feedback are **vital** to creating a plan that **works for the community and the future of our fish stocks**. Let's work together to protect our resources, support sustainable fishing, and ensure that our ocean continues to provide for generations to come.

<u>NORTH</u>	<u>CENTRAL</u>	<u>SOUTH</u>
23 June	24 June	25 June
5:30 PM	5:30 PM	5:30 PM
Dededo Community Center	Guam Museum	Inalåhan Community Center

We will be discussing proposed regulations that include...

- Minimum size limits for 9 species
- Ban on atuhong harvesting
- Mandatory licensing & reporting
- ...among others!

Che'sa, gas cards, and raffle prizes (spearguns, fishing rods, TAC coolers) simply for attending. (While supplies last.) MAILA'!!!

The Guam Fisheries Management Plan is an initiative by the Guam Department of Agriculture. For more info: +1 (671) 482-2749

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Thursday, August 07

6:30 PM

Malesso' Senior Citizen Ctr

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- Minimum size limits for 9 species
- Ban on atuhong harvesting
- Mandatory licensing & reporting
- ...among others!

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MINIMUM CATCH SIZE LIMITS

Minimum catch size of 12 in.



Bluefin trevally
(Tarakitu)



Bluespine unicornfish
(Tåtaga')



Ember parrotfish
(Palaksi, lāggua')



Big-eye bream
(Matan hagan)



Filament-fin parrotfish
(Palaksi, lāggua')



Longnose parrotfish
(Gualāfi)



Tanface parrotfish
(Palaksi, lāggua')

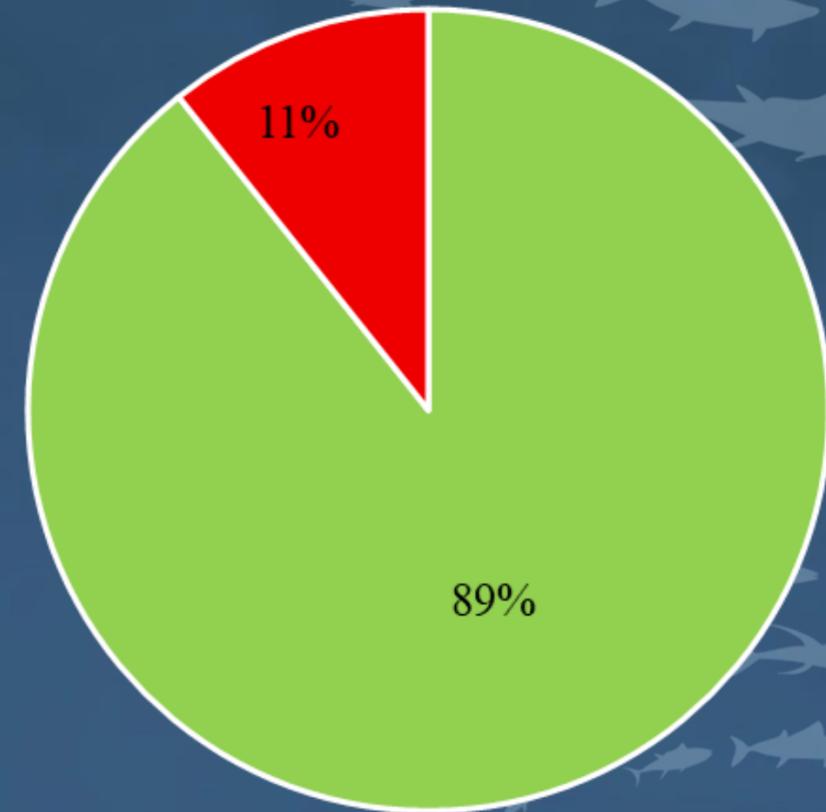


Steephead parrotfish
(Palaksi, lāggua')

Minimum catch size of 24 in.

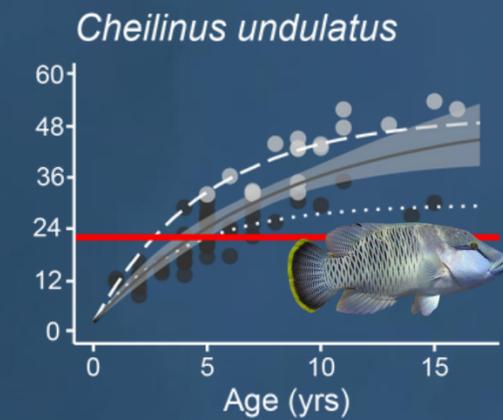
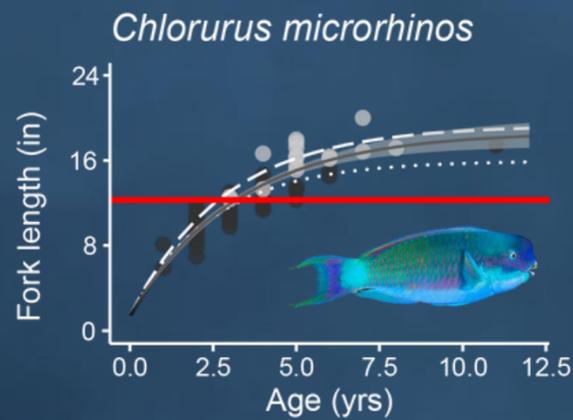
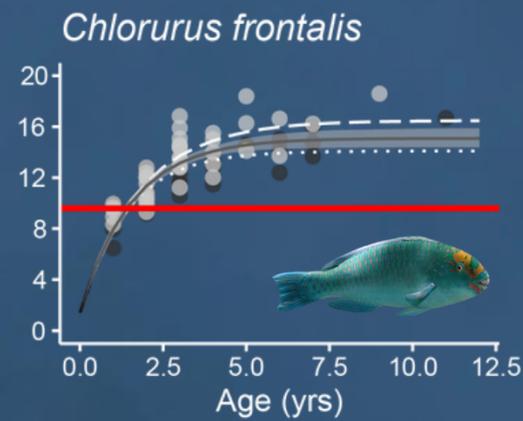
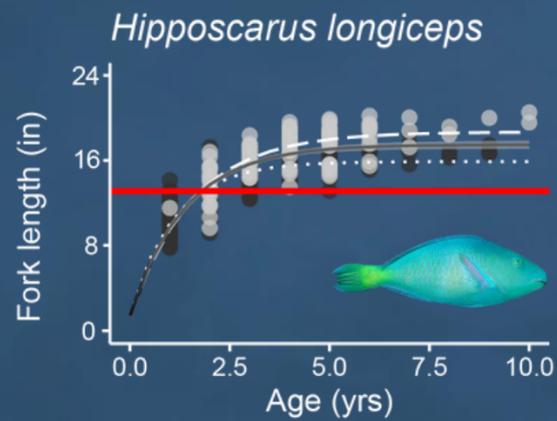
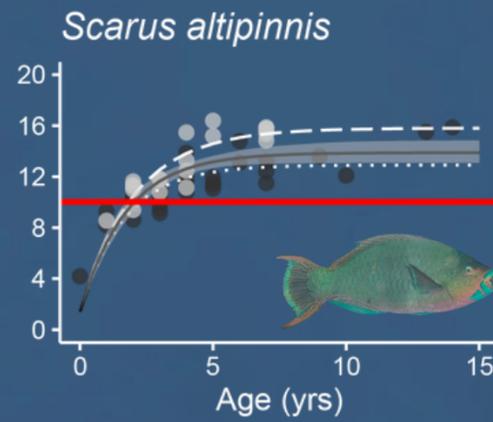
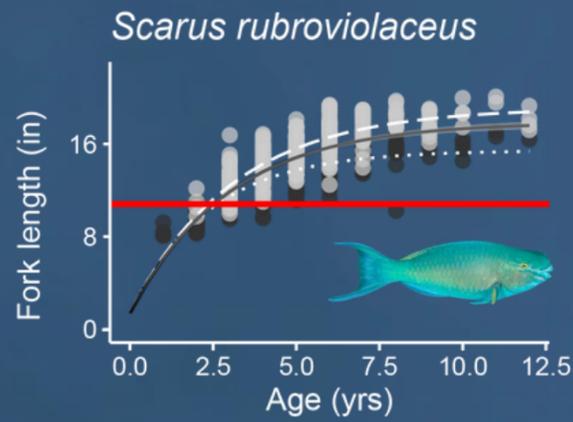
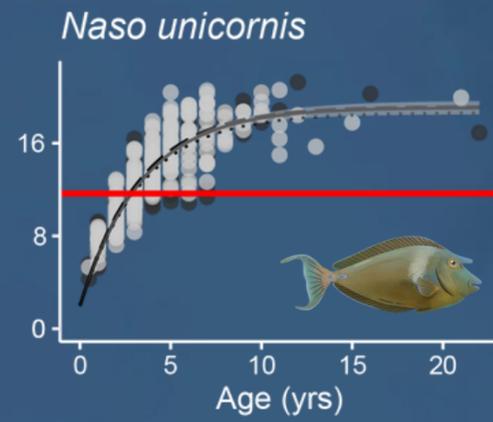
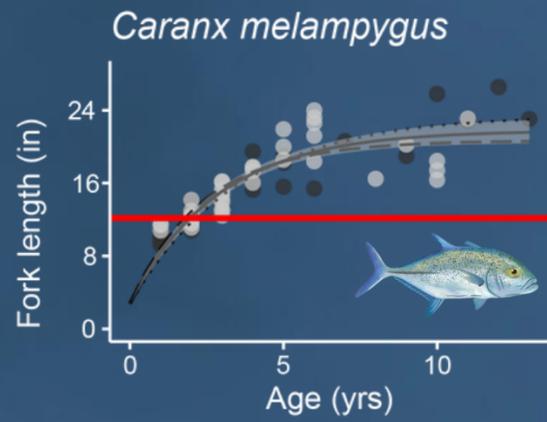


Napoleon wrasse
(Tangison)

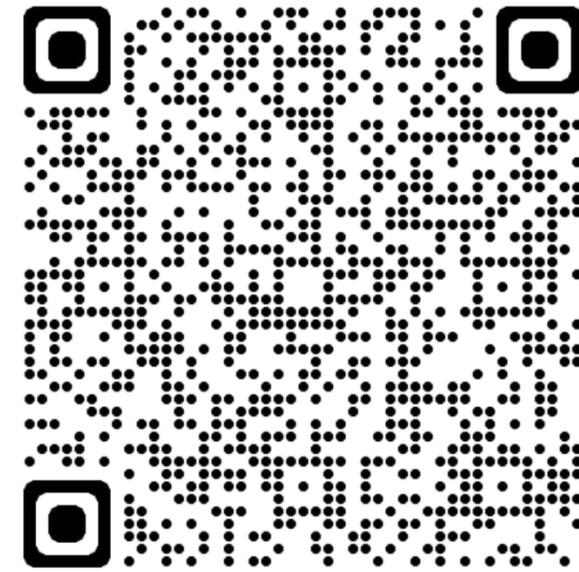


Support Oppose

SIZE-AT-MATURITY DATA



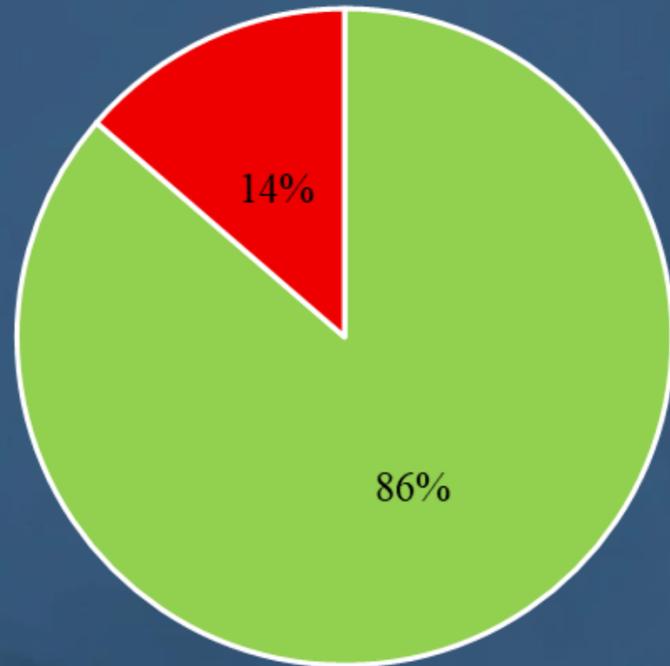
Minimum catch size is based on the average size in which these fish reach maturity.



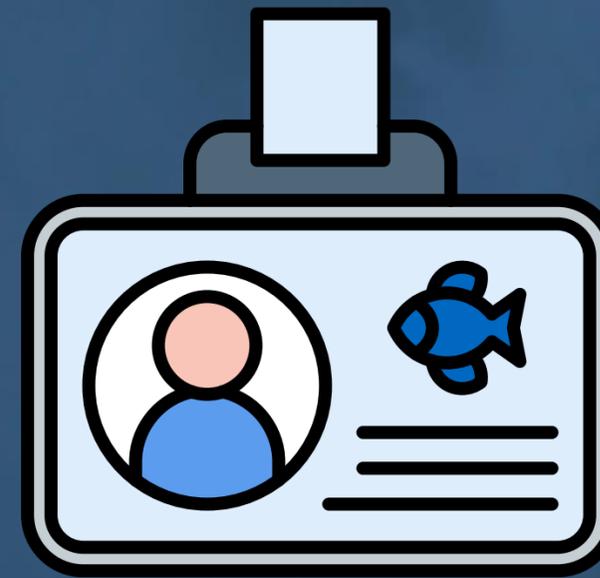
Scan QR code for a full list of available maturity lengths for Guam.



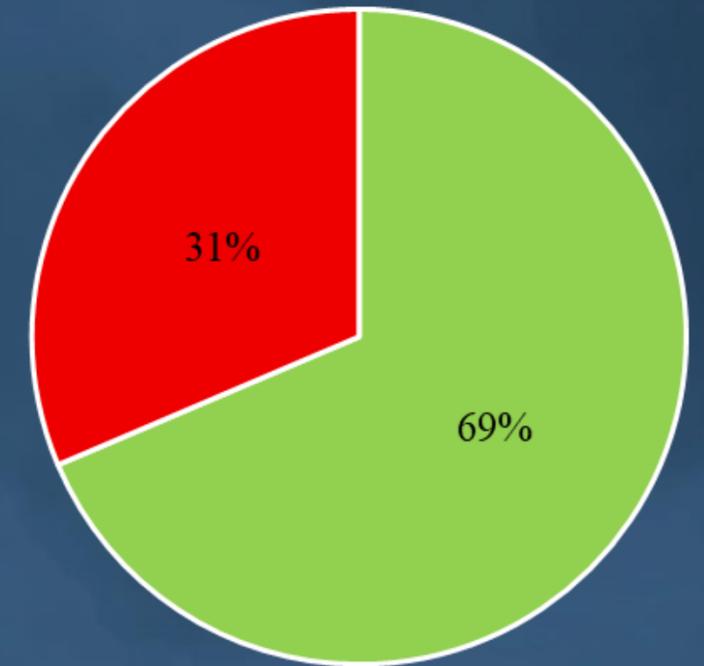
NO HARVESTING OF ATUHONG



■ Support ■ Oppose

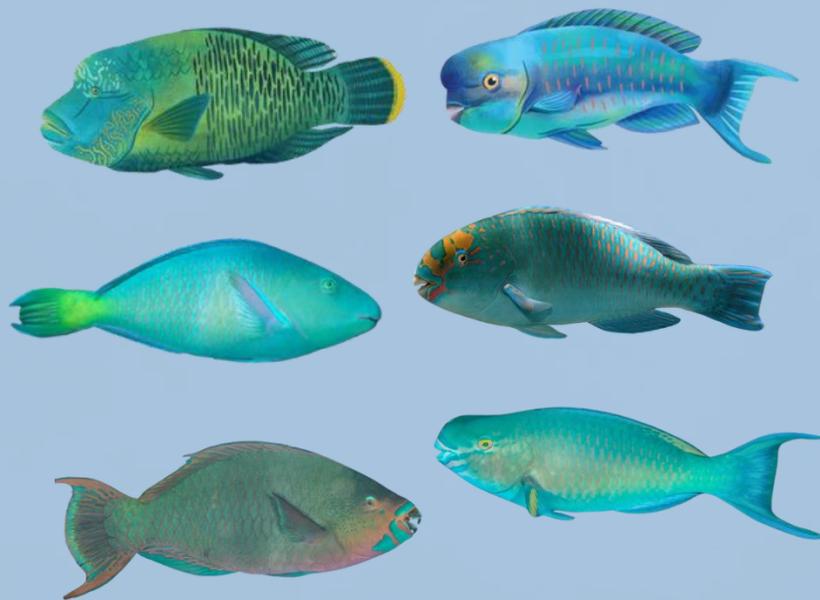


MANDATORY LICENSING & REPORTING

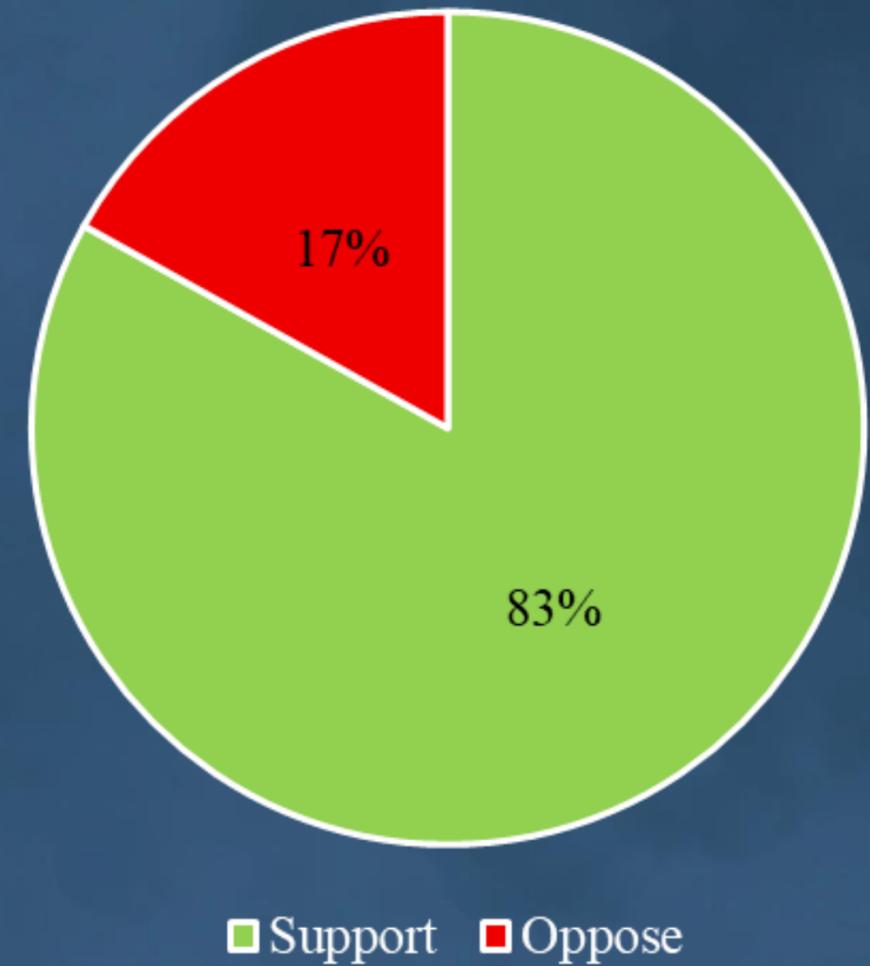


■ Support ■ Oppose

BAN ON COMMERCIAL SALES FOR 6 SPECIES



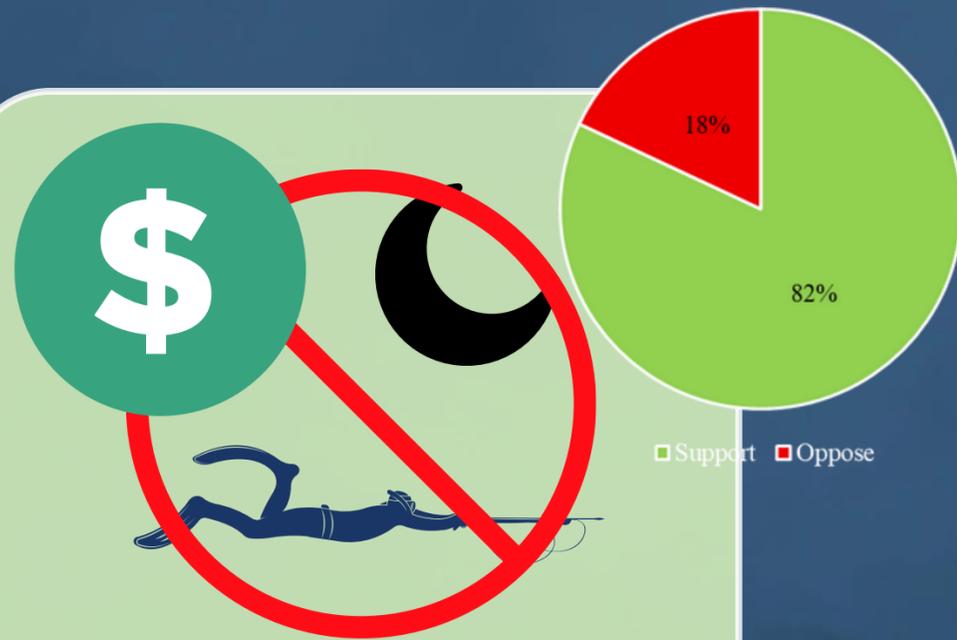
1. Napoleon wrasse
(*tangison*)
2. Steephead parrotfish
(*lågguá' disu*)
3. Longnose parrotfish
(*gualåfi*)
4. Tanface parrotfish
(*lågguá'*)
5. Filament-fin parrotfish
(*lågguá'*)
6. Ember parrotfish
(*lågguá'*)



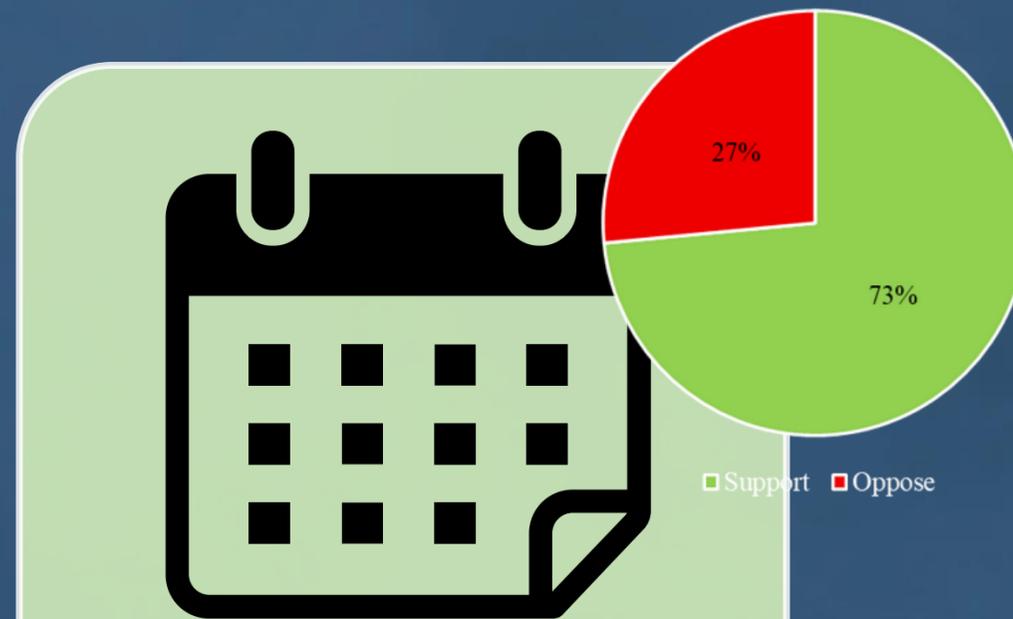
Concerns: Extreme amounts of fish harvested, happening very frequently; small fish are being caught; high commercial pressure.

Data: Average size of fish are small (many immature individuals in catch composition); large volumes with high frequency of occurrence; catch comprises vulnerable species.

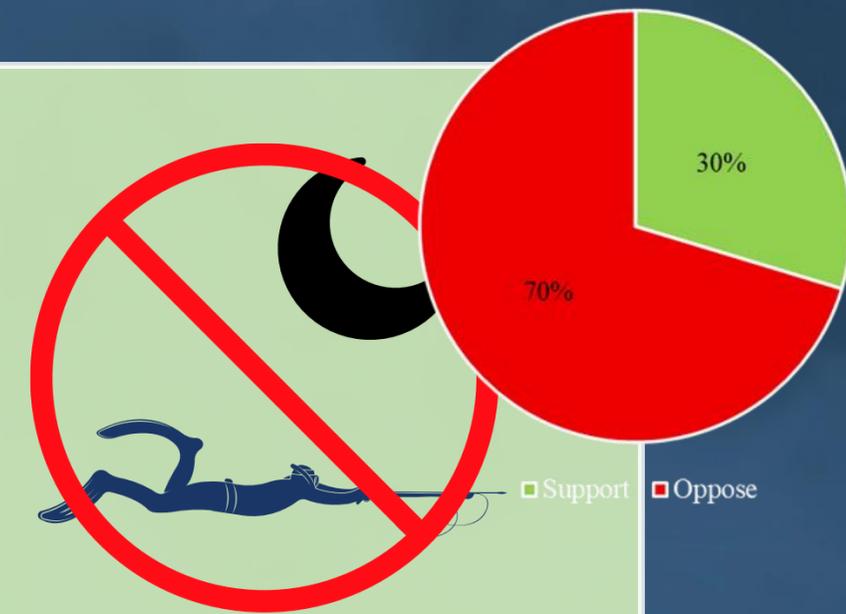
Long-term benefits: Bring back fish stocks around all of Guam.



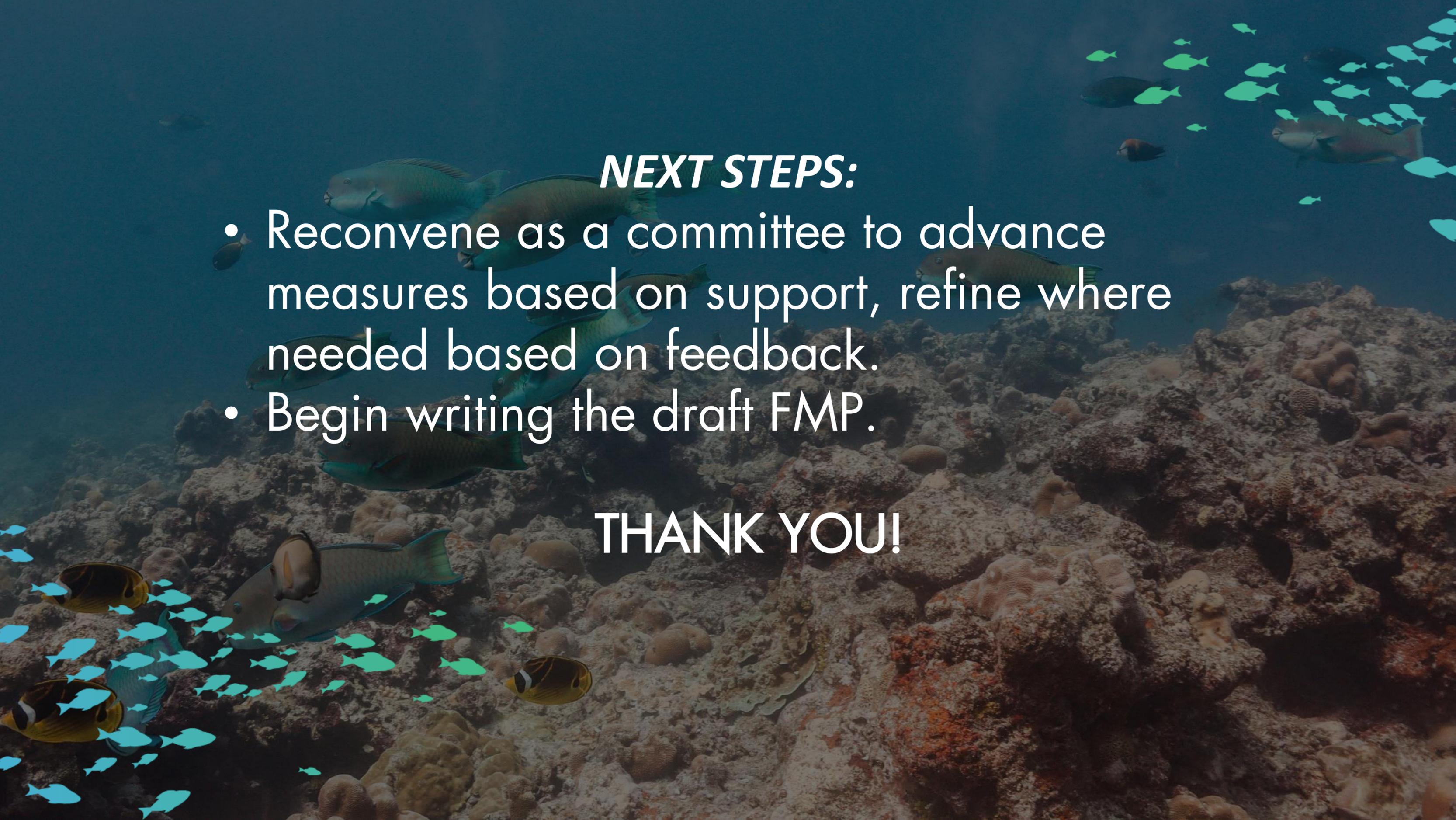
Prohibit commercial nighttime spearing only, but subject subsistence fishers to a permit and a daily limit



Seasonal moratorium on nighttime spearfishing; open during certain months (like Nov. to Apr.)



Moratorium on nighttime spearfishing for all sectors; re-evaluate in x years' time

An underwater scene featuring a diverse coral reef. In the foreground, there are large, textured coral structures. Various fish are visible, including several large grey parrotfish with prominent beaks, smaller yellow and black striped fish, and a school of small blue fish. The water is clear and blue.

NEXT STEPS:

- Reconvene as a committee to advance measures based on support, refine where needed based on feedback.
- Begin writing the draft FMP.

THANK YOU!