

Goal: Facilitate effective enforcement within the marine environment.

MSP Non-Spatial Objectives	#1 - Develop a marine resources enforcement strategy that clearly outlines consequences for infractions and is implemented through strengthened legislation.	DENR	2024
	#2 - Conduct a study to measure the efficacy of enforcement measures.	DENR	2026
	#3 - Conduct a public education campaign to raise awareness about existing and new marine regulations.	DENR	2025

List of acronyms: MoHA – Ministry of Home Affairs, DENR – Department of Environment and Natural Resources, MRB - Marine Resources Board, CFC – Commercial Fisheries Council, M&P – Department of Marine and Ports, BPS - Bermuda Police Service, CG - Coast Guard, MAROPS - Marine Operations Centre (Bermuda Radio), IDT - Department of Information and Digital Technology

Priority – 1 – High, 2- Medium, 3 – Low

Feedback that has been received during public consultations is detailed in the 'Comments' column next to the appropriate actions. Where feedback has already been incorporated, this is highlighted in the comments. Other pieces of feedback should be reviewed by the person responsible and incorporated into the action plan where possible (or the reason given for not including).

Other considerations from public consultations that do not fit into any of the actions below are detailed here:

- 1) Consider adding further details about the protection of mangroves and seagrass in the Enforcement Strategy, and include clear definitions of the different types of criminal activity: intentional; negligent; accidental.
- 2) Illegal shoreline developments are a problem in some areas, where mangroves have been destroyed to create illegal docks or retaining walls. Actions to improve this enforcement of this type of illegal activity should be included in the enforcement strategy.

Some action items have been redacted to protect sensitive information related to enforcement

Item No.	Action Description	Responsible Department	Person Responsible	Start Date	Due Date	Required resources	Output	Priority	MSP Objective # (refer above for #)	Status	Comments
	Finalise the Marine Enforcement Strategy to include the actions listed below	DENR	Director of DENR	2021	2024		Strategy document	1	1	In progress	A first draft has already been done, which is currently being updated to include details of partnerships with external entities and feedback from BOPP public consultations.
A	Licensing of activities reform										
A1	License recreational fishing activities and prioritise licensing of vessels (this will be included in the Licensing Reform Action Plan)	MoHA/DENR/MRB	Senior Marine Resources Officer	2021	2024		Legislation	1	1	In progress	In order to incorporate feedback from the public consultations, recreational licences should also be used as an opportunity to raise awareness. They should be issued with material explaining the rules and the reasons for them.
A2	Introduce bag limits for recreational fishers for a wider variety of species. (this will be included in the Licensing Reform Action Plan)	MoHA/DENR/MRB	Senior Marine Resources Officer	2021	2024		Legislation	1	1	In progress	
A3	Requirement for high contrast markings for commercial fishing boats	MoHA/DENR/CFC	Senior Marine Resources Officer	2021	2024		Legislation	1	1, 2	In progress	
A4	Requirement for up to date photographs of boat for new database.	MoHA/DENR/CFC	Senior Marine Resources Officer	2023	2026		Legislation	2	1, 2	In progress	
A5	Add requirement in legislation for fishers to cooperate with sampling of catches (this will be included in the Licensing Reform Action Plan).	MoHA/DENR/MRB/CFC	Senior Marine Resources Officer	2023	2024		Legislation	1	1, 2	Not yet started	
A6	Review gear restrictions for the recreational fishery (this will be included in the Licensing Reform Action Plan).	MoHA/DENR/MRB	Senior Marine Resources Officer	2023	2024		Legislation	1	1	Not yet started	In order to incorporate feedback from the public consultation, it is suggested that the cast net restrictions for recreational fishers in the Fisheries Regulations 2010 be determined by the mesh size. The maximum diameter be: (a) 10' for a cast net with mesh measuring less than 3/8 inch; and (b) at least 12', and preferably 16', for a cast net with mesh measuring 3/8 inch or larger. These rules would better match local gear supply and would make it easier for fishers to comply with the law.

Item No.	Action Description	Responsible Department	Person Responsible	Start Date	Due Date	Required resources	Output	Priority	MSP Objective # (refer above for #)	Status	Comments
A7	Review limited entry, vessel and gear restrictions to the commercial fishery (this will be included in the Licensing Reform Action Plan).	MoHA/DENR/MRB/CFC	Senior Marine Resources Officer	2023	2024		Legislation	1	1	Not yet started	
A8	Determine feasibility of setting and managing catch limits/quotas for various commercial fisheries (this will be included in the Licensing Reform Action Plan).	MoHA/DENR/MRB/CFC	Senior Marine Resources Officer	2024	2026		Strategy document	2	1	Not yet started	
B Legislative Reform											
B1	<i>Amend Fisheries Legislation to address gaps identified during consultation</i>	MoHA/DENR/CFC	Director of DENR	2023	2024	In house (Government)	Legislation	1	1	Not yet started	<p>This incorporates feedback from public consultations that legislation needs to be strengthened.</p> <p>In order to incorporate other feedback, it is suggested that the cast net restrictions for recreational fishers in the Fisheries Regulations 2010 be determined by the mesh size. The maximum diameter be: (a) 10' for a cast net with mesh measuring less than 3/8 inch; and (b) at least 12', and preferably 16', for a cast net with mesh measuring 3/8 inch or larger. These rules would better match local gear supply and would make it easier for fishers to comply with the law.</p> <p>Also consider increasing fines/consequences for illegal fishing to improve compliance and a 'presumption of guilt' to the legislation for those handling illegally-caught fish.</p>
B2	Work to implement the requirement in the Marine & Ports regulations for commercial and fishing vessels to have a functional and working AIS	Dept of M & P	Director of Marine & Ports	2023	2024	In house (Government)	AIS on commercial and fishing vessels	1	1, 2	In progress	This incorporates feedback from public consultations that legislation needs to be strengthened and that AIS should be a requirement on commercial vessels and be used to monitor compliance.
B3	<i>Amend Vessel Shipping Regulations to</i> > Develop legislation and a mechanism to report incidents of vessel groundings	Dept of M & P	Director of Marine & Ports	2023	2024	In house (Government)	Legislation	1	1, 2	In progress	
B4	<i>Amend Water Resources Act</i> Add inspect bilge holding tanks/stop cocks to be in compliance with Water Resource regulations	MoHA/DENR/Pol Control	DENR Environmental Engineer	2017	2018	In house (Government)	Legislation	1	1, 2	Completed	This incorporates feedback from public consultations that legislation needs to be strengthened.
C Operational reform and capacity building											
C1	Develop agreements – US Coast Guard, Royal Navy	Bermuda/US/UK	PS/Government House	2023	2026	In house (Government)	Agreement	2	1	In progress	In progress
C2	Secure web based surveillance capacity e.g. Catapult/Global Fishing Watch/real time satellite (low earth orbit).	Bermuda/US/UK	Ocean Shield/US Coast Guard	2021	2024	UK Marine Management Organisation and US Coast Guard	Contract	1	1, 2	In progress	DATA and seasonal trending analysis in progress
C3	Amend authorization for local agencies included in existing fisheries enforcement legislation in entirety of Bermuda's EEZ	MoHA	Director of DENR	2018	2024	In house (Government)	Authorization	1	1, 3	Partially complete	Fisheries can enforce entirety of EEZ, RBR Coast Guard can enforce Territorial Waters

Item No.	Action Description	Responsible Department	Person Responsible	Start Date	Due Date	Required resources	Output	Priority	MSP Objective # (refer above for #)	Status	Comments
C5	Develop and share Standard Operating Procedures (SOPs) & Aids for topics including – land based operations, sea based operations and case development inspections, marine ticketing, note taking, boat boarding reports, chain of evidence, brief preparation, court procedures and marine offences	DENR, Coast Guard	Head of Coast Guard, Director of DENR	2023	2024	In house (Government)	Publication and training	1	1	In progress	This incorporates feedback from the public consultations for better training to enforcers. To further incorporate feedback, the following should be included in this action: > Consider implementing a ticketing system where fishing infractions would be subject to a heavy fine, a short course to raise awareness, and points on fishing licences (similar to the traffic system). > Safety and enforcement training of fisheries wardens so they feel better equipped to deal with confrontational scenarios. > Coastguard training on fisheries legislation, (e.g., what is an offense, how to spot suspicious activity, how to check for illegal activity)
C6	Provide marine offenses summary and training	DENR/CG/DPP	Ocean Shield	2023	2024	In house (Government)/Ocean Shield	Training	2	1, 2, 3	In progress	This incorporates feedback from the public consultations for better training to enforcers. To further incorporate feedback, the following should be included in this action: > Safety and enforcement training of fisheries wardens so they feel better equipped to deal with confrontational scenarios. > Coastguard training on fisheries legislation, (e.g., what is an offense, how to spot suspicious activity, how to check for illegal activity)
C7	Consider joint operation centre or regular meetings with Coast Guard, BMOC and DENR	DENR/CG	Head of Coast Guard, Director of DENR	2023	2024		Command structure	1	1, 2	In progress	
C8	Conduct joint marine patrol operations and targeted enforcement operations with Police and Coast Guard. Further conduct coordinated land based operations with police.	DENR/CG	Head of Coast Guard, Director of DENR		2024	In house (Government)	Patrolling	1	1, 2	In progress	
C9	Create a calendar of activities and share with other agencies.	DENR/CG	Head of Coast Guard, Director of DENR		2024	In house (Government)	Calendar	1	1	In progress	
C10	Deploy an amphibious waterproof aerial drone and/or drop camera for increased daytime enforcement for protected areas to manage submerged fixed fishing gear. Deploy an underwater drone for gear inspection in-situ.	DENR	Blue Belt Ocean Shield	2021	2023	N/A	Equipment	1	1, 2	Complete	To incorporate public feedback from consultations, consider using autonomous vessels for enforcement.
C11	Contract/charter suitable local vessel to assist enforcement with monthly trap surveys – fitted with winch for hauling traps	DENR/Private	Director of DENR	2022	2024	Contractor	Contract	2	1, 2	In progress	Dependent from cooperation from fishers. This incorporates feedback from public consultations that more enforcers and patrols are needed. To further incorporate feedback, consider using inspections as an opportunity to monitor catch.
C12	Deploy a boat multi-beam depth sounder with GPS for in situ gear detection.	DENR/CG	Head of Coast Guard, Director of DENR	2019	2022	N/A	Equipment	1	1, 2	Completed	
C13	Deploy a boat mounted infra-red camera and extended radar for night time operations.	DENR	Director of DENR	2022	2022	N/A	Equipment	1	1, 2	Completed	

Item No.	Action Description	Responsible Department	Person Responsible	Start Date	Due Date	Required resources	Output	Priority	MSP Objective # (refer above for #)	Status	Comments
C14	Link Fisheries Wardens and Coast guard to Marine and Ports Shore Side Surveillance Camera network	DENR/M&P/CG	Head of Coast Guard; Maritime Safety Coordinator; Director of DENR	2022	2024	N/A	Command structure	2	1, 2	In progress	Coast Guard link established.
C15	Mark all leased gear with marking systems such as QR codes and/or micro data dots.	DENR	Director of DENR	2022	2024	Funding	Gear modification	2	1	In progress	Research into new technology underway.
C16	Improve recording with wardens - body cams	DENR/CG	Head of Coast Guard, Director of DENR	2021	2022	N/A	Personal equipment	1	1	Completed	Body Cameras deployed to Coastguard and Fisheries Wardens. Standard Operating Procedures being developed.
C17	Implementation of Automatic Identification System (AIS) and electronic chart plotters to all licensed commercial fishing boats e.g. primary and auxiliary.	DENR/M&P	Director of DENR; Maritime Safety Coordinator	2020	2024	Funding	Fishing vessel equipment for compliance	1	1, 2	In progress	This incorporates feedback from public consultations that AIS should be a requirement on commercial vessels and be used to monitor compliance. Legislation in place (Merchant Shipping (Vessel Traffic Monitoring and Reporting Requirements 202). Procurement of AIS in progress via Ocean Shield programme
C18	Better usage of existing non-collaborative surveillance such as social media trolling	DENR	Director of DENR	2023	2024	In house (Government)	Programming	1	1, 2	Not yet started	Policy under consideration
C19	Expansion of Video camera systems mounted at key marine access ways – new locations such as Cooper's Island and give access to Staff to maneuver cameras on the network.	M&P	Maritime Safety Coordinator	2023	2026	Funding	Surveillance equipment	2	1, 2	Not yet started	Policy under consideration
C20	New surveillance equipment – Procure new low light photographic equipment, boat mounted camera equipment, GPS tracking equipment for equipment and fisheries boats	DENR	Director of DENR	2023	2024	Funding	Equipment	1	1, 2	In progress	Some equipment deployed on Fisheries patrol vessel
C21	Increase ability to undertake long range monitoring and surveillance - Investigate usage of new non-collaborative surveillance technology including long distance drones, spaced based radar, web based accessed satellite coverage. Global Fishing Watch and NovaSAR	Bermuda/UK	Ocean Shield	2022	2024	Funding	Contract	1	1, 2	In progress	Consideration being given as part of Ocean Shield programme
C22	Ensure funding and opportunity for pilot licensing, scuba and health and safety course.	TBD	Director of DENR	ongoing	2024	Funding	Training	1	1	In progress	This incorporates feedback from the public consultations for better training to enforcers. To further incorporate feedback, the following should be included in this action: > Safety and enforcement training of fisheries wardens so they feel better equipped to deal with confrontational scenarios. > Coastguard training on fisheries legislation, (e.g., what is an offense, how to spot suspicious activity, how to check for illegal activity)
C23	Hold joint patrols and integrated communications with other agencies, specifically the Coast Guard e.g. sharing of duty rosters, inter agency agreements.	DENR/CG	Head of Coast Guard, Director of DENR		2024	In house (Government)	Patrolling	1	1	In progress	
C24	Create a better organization structure for the Warden team by modifying a warden post to a Senior Warden.	DENR	Director of DENR		2024	In house (Government)	Management	1	1	In progress	Job description of fisheries wardens under review (completion May 2023)

Item No.	Action Description	Responsible Department	Person Responsible	Start Date	Due Date	Required resources	Output	Priority	MSP Objective # (refer above for #)	Status	Comments
C25	Increase coverage of existing fisheries personnel - split shift, summer students. Develop budget to enable split shifts and overtime for existing staff.	DENR	Director of DENR	2023	2026	In house (Government)	Management	2	1	Not yet started	This incorporates feedback from public consultations that more enforcers and patrols are needed. To further incorporate feedback, consider using inspections as an opportunity to monitor catch.
C26	Review fisheries staffing needs in conjunction with other agencies e.g. need 6-8 warden posts for 24 hour coverage.	DENR	Director of DENR	2023	2024	In house (Government)	Management	1	1	Not yet started	This incorporates feedback from public consultations that more enforcers and patrols are needed. To further incorporate feedback, consider using inspections as an opportunity to monitor catch.
C27	Develop patrol strategies to maximize effectiveness by controlling tempo and locations, and which are randomized.	DENR/CG/MAROPS	Head of Coast Guard, Director of DENR	2023	2024	In house (Government)	Strategy	1	1	In progress	This incorporates feedback from public consultations that more enforcers and patrols are needed. To further incorporate feedback, consider using inspections as an opportunity to monitor catch.
C28	Focus patrol resources on high risk areas as a priority during peak times: > Marine - seasonal protected areas, hot spots, way points, lobster areas. > Land based operations – landing sites and vigilance posts. > Develop a way point strategy in channels – mooring buoys in strategic locations, channel entrances at peak times.	DENR/CG/MAROPS	Head of Coast Guard, Director of DENR	2023	2024	In house (Government)	Strategy	1	1	In progress	This incorporates feedback from public consultations that more inspections should be done at landing sites. To further include feedback, consider improving investigations into shoreside vendors to ensure they come from licenced fishers (e.g. roadside stalls, restaurants).
C29	Develop targeted surveillance/operations.	DENR/CG/MAROPS	Head of Coast Guard, Director of DENR	2023	2024	In house (Government)	Strategy	1	1, 2	In progress	
D Encourage Compliance											
D1	Create a web based public awareness campaign complete with landing page for all legislation and policies, incident reporting form, license forms and links to fisheries database.	DENR/IDT	Director of DENR	2023	2026	In house (Government)	Website	2	1, 3	Not Started	This incorporates feedback received during consultations that better education/awareness of both commercial and recreational fishing laws would improve compliance.
D2	Reinstitute “Fishtips” type phone hotline and expand to include protected species, marine heritage etc. Messages to be saved as wav files to designated email service.	DENR	Director of DENR	2022	2024	Telephone Contract	Telephone service	1	1, 2	In progress	Dedicated line procured.
D3	Develop an on-line reporting form on www.environment.bm with coordinates, times, photos, video etc.	DENR	Director of DENR	2023	2026	In house (Government)	Website/form	2	1, 2, 3	Not started	
D4	Reprint enforcement stickers and distribute with annual boat licenses.	DENR/M&P	TBD	2023	2026	Funding/Design	Stickers	2	1		This incorporates feedback received during consultations that stickers should be a requirement on licenced boats.
D5	Conduct overt and visible on shore and surface patrolling	DENR/CG	Director of DENR/Head of Coast Guard	2023	2024	In house (Government)	Patrol	1	1, 3	Ongoing	
D6	Display interpretive signage at key fishing locations, airport, key ports.	DENR	Director of DENR	2023	2026	Funding/Design	Signage	2	1, 3	Not started	This incorporates feedback received during consultations that: > better education/awareness of both the commercial and recreational fishing laws would improve compliance. > signage should be used where possible to delineate protected area boundaries. To be started once MSP finalised.

Item No.	Action Description	Responsible Department	Person Responsible	Start Date	Due Date	Required resources	Output	Priority	MSP Objective # (refer above for #)	Status	Comments
D7	Stakeholder meetings e.g. cruise ships staff, fisherman, spear fishers, and yachts.	DENR	Director of DENR	2023	2026	Government/Stakeholders	Consultation	2	1, 2, 3	Not Started	This incorporates feedback received during consultations that better education/awareness of both commercial and recreational fishing laws would improve compliance.
D8	Publications including consolidated Marine Resources Guide.	DENR	Director of DENR	2023	2026	Funding/Design	Publication/website	2	1, 3	Ongoing	This incorporates feedback received during consultations that better education/awareness of both commercial and recreational fishing laws would improve compliance. To be completed once the MSP is approved.
D9	Notifications. – gazetted area closures, whale watching guidelines	DENR	Director of DENR	2023	2024	In house (Government)	Government notice	1	1, 3	Ongoing	This incorporates feedback received during consultations that better education/awareness of both commercial and recreational fishing laws would improve compliance.
D10	Develop an integrated calendar of annual events to better marshal resources of agencies.	DENR/CG/M&P	Director of DENR/Head of Coast Guard	2023	2024	In house (Government)	Calendar/website	1	1	In progress	Fisheries Calendar complete. To be determined in collaboration with Dept of Marine and Ports, DENR and RBR Coast Guard
D11	Develop legislation and a mechanism to report incidents of vessel groundings impacting protected habitats.	TBD	TBD	2023	2024	In house (Government)	Reporting mechanism	1	1, 2, 3	In progress	To be determined in collaboration with Dept of Marine and Ports, DENR and RBR Coast Guard. Accident reporting required under existing regulations. Need to be expanded to include remit of protected species.
D12	Expansion of gear information to grocery stores, tackle shops shore side fueling stations and boat supply stores.	DENR	Director of DENR	2023	2024	In house (Government)	Public notice and inspection	1	1, 3	Not started	This incorporates feedback received during consultations that better education/awareness of both commercial and recreational fishing laws would improve compliance.
D13	Expand site inspections for gear to include grocery stores, tackle shops, shore side fueling stations and boat supply stores.	DENR	Director of DENR	2023	2024	In house (Government)	Public notice and inspection	1	1, 2, 3	Not started	This incorporates feedback received during consultations that better education/awareness of both commercial and recreational fishing laws would improve compliance.